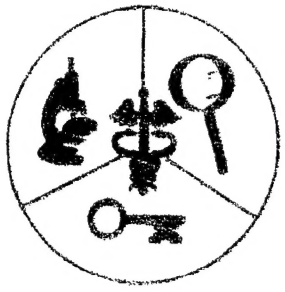

CENTER FOR
HEALTHCARE EDUCATION
AND STUDIES

DISTANCE LEARNING

By

CONTRACTOR: Booz-Allen & Hamilton, Inc.

Volume II Course Analysis Manual for Conversion to Distance Learning

Contract Study

CAAS 98-001 B

September 1998

UNITED STATES ARMY
MEDICAL DEPARTMENT CENTER AND SCHOOL
FORT SAM HOUSTON, TEXAS 78234-6100

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ABSTRACT

DISTANCE LEARNING

Volume I Distance Learning Analysis Study
Volume II Course Analysis Manual for Conversion to Distance Learning

The primary focus of this project is the determination of the feasibility and cost effectiveness of applying Distance Learning strategies to 22 selected PPSCP courses and development of a Distance Learning Analysis Procedures Manual.

DISTANCE LEARNING ANALYSIS STUDY FOR PROFESSIONAL POSTGRADUATE SHORT COURSE PROGRAM

FINAL REPORT

DEVELOPED UNDER CONTRACT DADA10-97-Q-0174

1. Purpose of Report

The Department of Health Education and Training (DHET) commissioned a study to determine the feasibility of converting their Professional Postgraduate Short Course Program (PPSCP) from their current format to a distance learning format. This report presents the results of that distance learning study.

This report is a companion to another document prepared during the study - the "Course Analysis Manual for Conversion to Distance Learning". The analysis manual provides a step-by-step procedure for performing the analysis of an existing course to determine whether it might be converted to a distance learning format. For details on that process please refer to the analysis manual.

This report starts with an overview of the process we used to conduct the study. It follows with a summary of the key findings of the study. Subsequent sections provide some recommendations of things that might be considered as the results of this study are applied to the PPSCP; and, provide detailed analyses of individual courses that were audited during the conduct of this study.

This study was performed by a small group of consultants that included a Ph.D. in Education, a Ph. D. in Industrial Psychology, an alumnus of DHET, and data researchers who have developed and delivered instruction in a variety of subjects.

2. Procedures Followed

To perform this distance learning analysis several steps were performed. The key steps in the process were:

- Review the list of courses that were to be audited as part of this study
- Develop survey instrument to collect the data necessary to make recommendations
- Baseline the technologies that might be applied to distance learning, and identified key attributes of the technologies that make them applicable or inappropriate for various course contents
- Determine what distance technologies are supported by DHET, the Army Medical Directorate (AMEDD), and the Training and Doctrine Command (TRADOC) that might be available for converted courses
- Use the survey data to refine the analysis process presented in the original study proposal
- Apply the refined survey instruments to the remainder of the courses to be audited
- Develop analysis tools for making a decision about convertibility of a course
- Apply the analysis tools to develop a recommendation
- Synthesize trends and overall findings into the final report.

2.1 Infrastructure Analysis - The Total Army Distance Learning Plan

To ensure that the recommendations made in this report were implementable, we gathered data on the technologies that the Army was investing in that might make distance learning possible. The Total Army Distance Learning Plan has resulted in significant investments in training facilities around the world that can support a variety of computer and televised delivery formats. This infrastructure of communications, computers, and television resources was used as the bounds of options for our recommendations.

The Student Survey instrument administered at each course we audited allowed us to determine three things:

1) Did students have reasonable access to Army Distance Learning Centers at their normal place of work?
2) Were computers present at the student's place of work, or did they own home computers?
3) Were the computers that students have access to connected to the internet in some fashion?

In addition, we gathered information about the configuration of computers that students have access to in order to determine how many students had a "common" platform.

2.2 *Analysis of distance learning technologies*

Using information gathered from open sources we identified the existing and emerging technologies that could be used for the delivery of instruction from a distance. Those technologies were compared with the Army infrastructure that would exist over the next 2-3 years. Where there was a match, we included the technologies in the worksheets and tables that were used to develop our individual course recommendations. Where there was a technology that was not explicitly support in the Total Army Distance Learning Plan, we made mention of technologies that might be used to enhance a course in the future. We made a conscious decision not to recommend delivery media that would require the Army to make additional investments in infrastructure in order to make our recommendation implementable.

2.3 *Development and refinement of the Data Collection Instrument*

Assumptions we made in our study proposal about the content and organization of PPSCP courses proved to be inaccurate. PPSCP courses are not courses in a traditional sense. They generally are delivered in a symposium or conference format. The content for most courses is very different from one presentation to the next. The objectives of each course are very broad and general. Individual presentations or course modules are tied to the overall course objective, but a traditional hierarchy of learning objectives is not developed for each course. Instead, the courses tend to be informative and provide introductions to tools, techniques or issues that are currently facing the medical profession.

As a result of this difference between what we assumed about the courses, and the reality of their format and content, we had to completely revise our data gathering and analysis strategy early in the study. We took the revised instruments and reapplied them to the initial three courses to ensure that our final recommendations for individual courses were based upon the same data gathering techniques.

2.4 *The data collection process*

Course and infrastructure data were gathered primarily from two sources. Course information was gathered from the people who were responsible for organizing, staffing, and conducting a specific course. These people are generally discussed as "Course Administrators". They develop the syllabus for the course, identify and secure speakers, perform student registration functions, and ensure that proceedings from the course are available in some form to the students.

Infrastructure information was gathered from students attending the courses as well as Course Administrators. While survey instruments were provided to all students attending a course, the return rate varied greatly. In some cases we received most of the student surveys for a course. In other instances our return rate was only about half. We don't believe that the use of this incomplete data biases our recommendations or changes the list of technologies that are viable for PPSCP course delivery. There was enough

cohesiveness in the surveys were did receive to conclude that the student population was well represented by our survey data.

2.5 Data analysis and reporting process

Details of the data analysis and reporting process are captured in the companion Course Analysis Manual for Conversion to Distance Learning. In general, we evaluated whether the educational content of a course would be made less effective if the course was converted to a distance learning media. In certain cases the primary goal of the course was to develop leadership skills or enhance interpersonal skills that would be very difficult (though not impossible) to accomplish via distance learning techniques. In other cases there was hands on lab work with access to materials or equipment not generally accessible outside of the course setting. The cost of converting these types of courses to distance learning are significantly more expensive to convert than to deliver in their current format.

When evaluating the material to be converted to distance learning, we factored our portions of the courses devoted to topics outside of the focus of the course. In many cases briefings that were of interest to the students were made a part of the conferenece (Tri-Care briefings, current job opportunities in a career field, evolution of individual Corps organizations). These modules of the course were not considered in our analysis our recommendations for an individual course.

3. Summary of Findings

This section provides general conclusions reached as a result of our study. These are offered as recommendations for the PPSCP program as a whole, not recommendations for a specific course.

3.1 Course Recommendations

The table below identifies the courses audited as part of this study and provides the summary recommendation for each course. Details for of the recommendations for an individual course is contained at the end of this report in the section with the corresponding course number on the tab label. Overall, two courses were recommended for conversion to a video teletraining (VTT) format, twelve were recommended for conversion to a web based training (WBT) format, one was recommended for enhancement through a distance learning technology, and seven were recommended to remain in their current format.

Table 3-1: Summary Course Recommendations

Course #	Course Title	Recommendation
A0111	1st Combined Operational Aeromedical Problems Course	WBT+ Enhancement
A0116	Gary P. Wratten Military Surgical Symposium	No change
A0126	14th Annual ACP/Army Regional Meeting: Internal Medicine	WBT + Enhancement
A0137	Army Force Health Protection Conference	WBT
A0156	Multidisciplinary Approach to Head and Neck Trauma	No change
A0202	Endodontics for the General Dentist	VTT
A0208	Restorative Dentistry and Dental Materials	VTT
A0306	1998 Military Veterinary Medical Seminar	WBT
A0307	Military Veterinary Foreign Animal Disease Diagnostics	No change
A0416	Patient Administration Symposium	WBT
A0421	Health Facility Life Cycle Acquisition: Newcomer's Orientation Track	WBT
A0423	AMEDD Worldwide Personnel Management Course	WBT
A0437	Army Medical Evacuation Conference	Enhancement only
A0438	US Army Health Care Logistics	WBT
A0513	Phyllis J. Verhonick Research Course	WBT + Enhancement
A0515	Military Nursing Practical Course	WBT
A0524	Army Nurse Corps Company Grade Leadership Course	No change
A0624	Army Medical Specialist Corps Executive Management Course	No change
A0630	AMSC Combat Casualties and Humanitarian Missions Course	No change
A0711	91 B Multisystem Trauma Short C	WBT
A0717	91 R/S/T Short Course (Vet)	WBT
A0803	Health Care Ethics	No change

3.2 Student Information Summary

A large amount of data was gathered about the demographics and geography of the students attending the PPSCP programs. This information gave insights into the overall costs of the current course, the access that students have to computers and other distance learning delivery platforms, and their goals for attending PPSCP courses The table below summarizes the findings of these surveys.

Data Category	Findings
Army Attendees	In most cases the courses were predominantly attended by active duty, regular Army staff. Normally there was a small percentage (5% or less) of attendees from other services or agencies. There were exceptions, such as the Health Care Logistics Course where nearly half of the attendees were from the Air Force. Only a small percentage of the courses were attended by members of the Army Reserve or National Guard.
Ranks	The highest attendance in these courses fell in the CAPT and MAJ ranks, representing about 40-50% of most courses. There was generally a 10% student population in each of the LTC and 2LT ranks. Civilians and other agency attendees were generally a small percentage of the attendees (less than 5%)
TDY Students	In general, over 85% of all attendees traveled on TDY status to attend these courses.
Primary Goal of Attendance (Decending Order of Importance)	To Improve Professional Skills To Learn New Trends In My Professional Area To Interact with Peers To have a better understanding of my organization To earn Continuing Educational Credits To develop professional contacts or networks To become familiar with a topic area
Computer literacy	On a 5 point scale, with 5 being "very literate" - 4.5
Regular Use of Computers	On a 5 point scale, with 5 being "every day" - 4.4

4 Recommendations

There were several general findings that may be helpful in using this study to implement a distance learning program for PPSCP. Those findings are discussed below.

4.1 Refinement of Data Collection

The data gathering instruments used in our study, and provided in the companion analysis manual proved very useful. However, if we were to continue with additional audits we would probably eliminate the use of the student survey. While the data was very illuminating, it did not vary greatly from course to course. Once we were able to establish a baseline, the subsequent courses generally followed the trend closely.

4.2 Development of a Style Guide for VTT and WBT

In order to make the development of VTT and WBT courseware and productive and consistent as possible, effort should be placed on the development of style guides for both

technologies. The WBT style guide could be broadened to encompass standards for computer based training (CBT) as well. The use of these style guides will immensely improve the usefulness of the developed products, and minimize the cost of producing the courseware.

4.3 Administrative Factors

Conscious effort will need to be made to "market" distance learning coureware. The availability of courses and the relevance of the course content needs to be easily accessible to the target student population, or they won't enroll. The registration and tracking of student progress will need to be facilitated by automated tools created to support the administration of a distance learning curriculum.

4.4 Providing Assistance

DHET will need to add staff who can help the content developers, answer questions, and work through problems. These may be Program Managers, but the skill set will be specifically oriented to authoring courseware using automated tools, not the subject matter or the course objectives. DHET or the program officers should be proactive keep track of the content development. It's like putting together an anthology, there is a need to keep track of all the parts as the courseware comes together for each course offering.

The following tabbed sections present the final recommendations for the individual courses audited through this study.

1st Combined Operational Aeromedical Problems Course
Conversion Analysis

COMBINED OPERATIONAL AEROMEDICAL PROBLEMS COURSE

Course Purpose:

Provide information and training to all military personnel (primarily Army and Navy) dealing with aeromedical problems, to include flight surgeons, medics and technicians. This was the FIRST combined aeromedical problems course.

Course Content Stability: **Low**

The course presentation and specific focus will change from year to year.

General Presentation Style: **Distributive**

Practically all of the presentations were lectures supported by graphics. A CD-ROM is to be provided to participants containing copies of all the presentations.

Instructional Aids:

Computer/PowerPoint, video, overheads. All presentations had more than adequate technical support.

Hands-on Activities:

One hands-on demonstration session was available throughout most of the conference.

Degree of Instructional Interaction:

The degree of interaction was generally low. Very little time was available to ask questions

Relevant Instructional Value: **Moderate to high**

This course had in excess of 135 presentations. A number of specialties were represented, primarily flight surgeons. While some of the presentations were of general interest, others were of specific interest to only one segment of the audience. The relevance of the instruction to the participant dependent primarily on careful selection of presentations by the participant.

Recommendation

Convert portions of this course to Web based training, others to an electronic journal. Because the content of this course will change every year, the actual portion to be designed as distance learning versus that presented in another format such as web-based discussion groups, web-based professional libraries, electronic journals, etc., will have to be made during the analysis phase.

While an Aeromedical Problems Web Site could be done it would require careful indexing and content supervision possibly by a board of experts. This course could be made into a number of courses. Aspects of this course were actually a professional association conference. While such activities are necessary, not being instruction, they would not be suitable for distance learning. While the current cost of the course is relatively high, ($492,000) 60% of the cost was covered by Navy funds. The Army's expenses for this course was $192,000 which is significantly less than the $281,475 that would be required to convert this course.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 1st Combined Operational Aeromedical Problems Course	**Course Number:** A0111

1. Instructional goals of the course: Provide information and training to all military personnel (primarily Army and Navy) dealing with aeromedical problems, to include flight surgeons, medics and technicians.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 91	7. Convert to DL?	X	
4. Number of hours to be converted	# 68	8. Enhance?	X	
5. Number of registered students	# 455			
6. Number of potential students that could benefit from the course	# 1500			

9. If item 8 = Yes, Specify - Electronic Journal

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 281,475	
11. Total Cost Year Two	$ 281,475	
12. Total Cost Year Three	$ 281,475	
13. Total Cost Year Four	$ 281,475	
!4. Total Cost Year Five	$ 281,475	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 1,407,475***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 281,475	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	# 7500	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	$ 188	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
Electronic Journal	$ 3,375
	$
	$
Total Enhancement Costs	$ 3,375

Instructional Formats and Physical Training Requirements

Course Name: 1st Combined Operational Aeromedical Problems Course	**Course Number:** A0111

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
95%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
4%	*Demonstration*	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
1%	**Shop Activity**	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: 1st Combined Operational Aeromedical Problems Course			
Course Number: A0111			
Length of course - number of hours of instruction: 85			
Number of Registered Students: 455			
Number of potential students that could benefit from this course: 1500			
Instructional goals of the course: To provide information and training to all military personnel, to include flight surgeons, medics, and technicians, dealing with aeromedical problems, .			
Frequency of Course Offering: Once a year			
Continuing Education Credit Offered? Yes		**Number:** 31	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Note: Demonstrations were used less than 4% of the time and Audio (for non-voice sound reproduction) was used less than 2% of the time. These factors will not be considered for the remainder of the analysis.

4. Course Technology Match Table

Course (Name) 1st Combined Operational Aeromedical Problems Course		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	X					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: 1st Combined Operational Aeromedical Problems Course	**Course Number:** A0111			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		X	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: 1st Combined Operational Aeromedical Problems Course	**Course Number:** A0111			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		X	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: 1st Combined Operational Aeromedical Problems Course **Media:** Web Based Training **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___200___					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.6*[1]	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	*48*	*20*	*400*	*9*	
	Total Labor Hours - sum across line 5					*117*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

[1] Given that this course will require a substantial amount of reorganization to make it suitable for distance learning from an instructional perspective, additional time will be needed during the analysis phase. possible time savings are reduced to 40%.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: 1st Combined Operational Aeromedical Problems Course **Media:** CBT Multimedia **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___200___					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.6*[2]	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	*48*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*117*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

[2] Given that this course will require a substantial amount of reorganization to make it suitable for distance learning from an instructional perspective, additional time will be needed during the analysis phase. possible time savings are reduced to 40%.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: 1st Combined Operational Aeromedical Problems Course		**Course Number:** A0111
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 117
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 5850
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 68
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 48
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 280,800
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs (Electronic Journal)	$ 675
12	Add line 7 to 12	$ 675
13	**Total Cost** - Add lines 6 and 12.	$ 281,475
14	Number of potential students	# 1500
15	Average Cost Per Student Divide line 13 by line 14	$ 188

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: CBT Multimedia		
Course Name: 1st Combined Operational Aeromedical Problems Course		Course Number: A0111
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 117
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 5850
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 68
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 48
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 280,800
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs (Electronic Journal)	$ 675
12	Add line 7 to 12	$ 675
13	**Total Cost** - Add lines 6 and 12.	$ 281,475
14	Number of potential students	# 1500
15	Average Cost Per Student Divide line 13 by line 14	$ 188

Separate worksheets are needed for each technology.
Follow the instructions given on the worksheet.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: 1st Combined Operational Aeromedical Problems Course	**Course Number:** A0111

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	5616	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	5616	
3. Labor hours year 3	5616	
4. Labor hours year 4	5616	
5. Labor hours year 5	56`6	
6. Subtotal	28080	
7. Average labor cost	$50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$ 1,404,000	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 675	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 675	
11. Cost year 3	$ 675	
12. Cost year 4	$ 675	
13. Cost year 5	$ 675	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 3,375	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 281,475	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 281,475	
17. Potential students year 1	1500	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	7500	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 188	Round up to the nearest whole dollar

Gary P. Wratten Surgical Symposium
Conversion Analysis

Gary P. Wratten Military Surgical Symposium
The course provides an opportunity for residents to present research efforts, update military surgeons on current surgical topics presented by national experts, and to encourage exchange between military surgeons.
Course Content Stability: **Low**
The majority of the course focuses on advances in the field and research findings. As such the content changes yearly
General Presentation Style: **Lecture**
The standard method of presentation was lecture. One presenter showed a Video of approximately ninety seconds length in support of his presentation.
Instructional Aids:
Power Point visuals, 35mm slide or overheads supported all presentations.
Hands-on Activities:
None
Degree of Instructional Interaction
Questions were encouraged and asked throughout the presentations. This was important as a learning technique to the resident presenters.
Relevant Instructional Value: **High**
Unlike most PPSCP courses, the resident (student) presenters were the primary focus rather than the audience at large. This conference permitted new residents to practice presenting their research findings to an audience of other residents and staff physicians. While only staff physicians received CME credit (19) the primary beneficiaries of this course were the presenters. All attendees are pre-selected, consequently the number of participants is limited and would continue to be limited if converted to distance learning.
Recommendation
Do not convert. While it is technically possible to convert this course to a distance learning using Video Teletraining, it is recommended that the course not be converted because little if any cost savings could be expected. If the decision were made to convert the course, the only media that could support it would be Video Teletraining. Since the presenters currently make up approximately 54% of the audience, a unique approach would be needed. The course could be divided into three segments separated by a period of time (for example one week) between sessions. This would allow student presenters to only spend one day presenting plus one day travel time. Excluding cost, the value of having the opportunity to present face-to-face has to be considered. Presenting before a television camera is a different environment and may not provide the type of experience that would be of most benefit to the resident surgeon presenters.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Gary P. Wratten Military Surgical Symposium	**Course Number**: A0116

1. Instructional goals of the course : a. To provide an opportunity for surgical residents and fellows in the military to present their research efforts. b. to update military surgeons on current surgical topics presented by nationally known experts, and c. to encourage exchange between military surgeons especially in reference to readiness issues and field surgery.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 20	7. Convert to DL?		X
4. Number of hours to be converted	# -0-	8. Enhance?		X
5. Number of registered students	# 75			
6. Number of potential students that could benefit from the course	# 100			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High	**X**	
Other					

Labor Hours Estimation Method: Short __ Long__ Synchronous __X_

Cost Data

10. Total Cost Year One	$ 76,850	
11. Total Cost Year Two	$ 68,850	
12. Total Cost Year Three	$ 68,850	
13. Total Cost Year Four	$ 68,850	
!4. Total Cost Year Five	$ 68,850	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 352,250***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 70,450	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	# 500	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	$ 705	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: Gary P. Wratten Military Surgical Symposium			**Course Number:** A0116
% of Course Using this Instructional Format	**Format**	**Description**	**Physical Presence Required?**
52%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
48%	***Student Verbal Presentations***	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Gary P. Wratten Military Surgical Symposium			
Course Number: A0116			
Length of course - number of hours of instruction: 20			
Number of Registered Students: 75			
Number of potential students that could benefit from this course: 100			
Instructional goals of the course: a. To provide an opportunity for surgical residents and fellows in the military to present their research efforts. b. to update military surgeons on current surgical topics presented by nationally known experts, and c. to encourage exchange between military surgeons especially in reference to readiness issues and field surgery.			
Frequency of Course Offering: once a year			
Continuing Education Credit Offered? Only for attending staff physicians, not residents.		**Number:** 19	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X[1]
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	X
Assigned reading			

[1] One non-student presenter used ninety seconds of video in his presentation. Video will not be used to determine technology of level of interactivity.

Course Technology Match Table

Course (Name) Gary P. Wratten Military Surgical Symposium		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation						
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities	X					

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Gary P. Wratten Military Surgical Symposium	**Course Number:** A0116	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation		>>>>>>>>
Graphics		
2D graphics still	X	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		
Question and answer opportunities		X

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Calculation of Synchronous Training Costs

Course Name: Gary P. Wratten Military Surgical Symposium	**Course Number**: A0116		
Labor Costs:			
	Session 1	**Session 2**	**Session 3**
Development Cost = (320 hrs.) x average hourly rate ($50)	$ 5,350	$ 5,350	$ 5,300
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate ($50)	$ 400	$ 450	$ 300
Non-local Labor Cost = Number of non-local presenters) x (length of the course in days +1) x number of times offered x average daily rate ($400	$ 1,600	$ 2,400	$ 2,400
Moderator	$ 350	$ 400	$ 250
Local Labor Cost + Number of local presenters x average hourly rate ($50) X 2 X number of times course is offered.	$ 100	$ 200	$ 100
Total Labor Costs per session	$ 7,800	$ 8,800	$ 8,350
Additional Cost (any costs not captured above)			
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	$ 3,740	$ 5,440	$2,720
Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.	$ 11,000	$ 16,000	$ 8000
Total dollar amount paid as honorariums	$ 1,667	$ 1,667	$ 1,666
(Other)	$ 16,407	$ 23,107	$ 12,386
Total Estimated Cost: Add Total Per Diem, Airfare, Labor Costs, and Additional Costs.			
Total Labor Costs	$ 24,950		
Total Per Diem	$ 11,900		
Total Airfare	$ 35,000		
Total paid as honorariums	$ 5,000		
(other)	$ -0-		
TOTAL COURSE COST Year 1	$ 76,850		
Cost Per Student = Total course costs divided by potential number of students	$ 769		

1. Student presenters not included in labor costs.
2. Cost of a Moderator included.
3. Per diem includes costs of student and non student presenters.
4. Air fair estimated at $1000 round trip.
5. Total honorariums of $5000 divided between the three sessions.
6. While the possible number of attendees is 100 almost half may be student presenters. Since part of the "learning" includes answering questions the focus is on the presenter (many questioners to one learner) rather than the audience (one instructor to many learners) the need for a small class is not as significant as it would be in a typical class situation.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Gary P. Wratten Military Surgical Symposium	**Course Number:** A0116

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High **X**		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	499	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	339	
3. Labor hours year 3	339	
4. Labor hours year 4	339	
5. Labor hours year 5	339	
6. Subtotal	1855	
7. Average labor cost	$ 50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$ 92,750	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 51,900	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 51,900	
11. Cost year 3	$ 51,900	
12. Cost year 4	$ 51,900	
13. Cost year 5	$ 51,900	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 259,500	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 352,250	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 70,450	
17. Potential students year 1	100	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	500	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 705	Round up to the nearest whole dollar

Internal Medicine
Conversion Analysis

INTERNAL MEDICINE COURSE

Course Purpose:

To present the latest research and developments in the field of internal medicine.

Course Content Stability: **Low**

Given that this course presents the latest developments in the field of internal medicine, the content material changes from year to year.

General Presentation Style: **Lecture**

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners.

Instructional Aids:

Heavy reliance on 35 mm and PowerPoint slides outlining the lecture, or presenting graphs showing research results and pictures of symptoms associated with various conditions. In addition, many of the instructors provided handouts with supplemental information relevant to the topic they were addressing.

Hands-on Activities:

None

Degree of Instructional Interaction:

During the plenary sessions, students were instructed to hold their questions until the end. The instructors were then told to meet with students with questions at a particular location during breaks. There were opportunities for the students to ask questions during the breakout sessions, and the degree to which this interaction was engaged in varied from instructor to instructor, and from student to student. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.

Relevant Instructional Value: **Moderate**

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. The main thing to be gained from attending this course (according to the POC) was an opportunity to network, and to make contacts among peers.

Recommendation:

Convert the course to Web Based Training supplemented by an Electronic Journal

The internal Medicine course was delivered in a standard large conference format, a plenary session in the morning and breakout sessions in the afternoon where the students could attend most of the sessions being conducted as they wished. Some "workshop" sessions were by invention only, which focused on such topics as American College of Physicians (ACP) chapter business, and Army internal medicine residency curriculum development. Other sessions identified as workshops were actually panel discussions.

Considering the plenary and breakout sessions, the conference provided a total of 72+ hours of presentations. Some 116 fifteen minute presentations were included for a total of 29 hours of fifteen minute presentations. Of the 12 hours of time devoted to the plenary sessions some 5 hours were devoted to ACP business, 10 fifteen minute presentations of papers submitted for competition, and various awards and recognition of service.

A maximum of 21 Continuing Medical Education (CME) credit could be earned at this conference.

Procedural Recommendations: This course can be converted to Web Based Training at a very low cost given the following:

1. All the fifteen minute presentations as well as some six (6) hours of longer presentation which do not specifically address the purpose of the course should be delivered through an electronic journal.

2. Closed workshops (working groups), which are not intended for student participation, cannot be converted to distance learning and another venue should be found for these activities.

Excluding the above items some 30 hours of content remains which includes the common core (plenary sessions) and the breakouts (specialty sessions) Because of the 10 specialty sessions (which can change in number from year to year), the use of VTT is not recommended. The course would need to be offered multiple times, or the specialty sessions would need to be offered sequentially which would create a significant scheduling problem in identifying which sites are needed and when. The large number of potential participants (800) who are distributed worldwide, would add to the scheduling problem. While the per student cost of VTT is less than Web Based Training ($40 vs. $68) if presented only once, the administrative and scheduling problems would very likely result in a much lower attendance and completion rate.

The use of a Web Based Training approach allows for self-registration, and open entry/open exit use. This would significantly reduce the administrative burden as well as being more adaptable to the work environment. Also the courseware could be easily converted to CBT Multimedia, at minimal cost, for any participants who do not have Internet access.

The 30 instructional hours recommended for conversion can be assigned by the Program Officer to a common core or specialty option as appropriate.

Conversion of each fifteen-minute presentation and other papers to an electronic journal should take approximately 45 minutes, to include scanning, formatting, and indexing. Total labor time for this task should be approximately 92 hours.

The conversion of this course should result in a yearly 70% saving over current costs. This saving is approximately equal to the current student transportation cost, which is some 75% of current expenditures.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine	**Course Number:** A0126

1. **Instructional goals of the course :** To present the latest research and developments in the field of internal medicine.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 72	7. Convert to DL?	X	
4. Number of hours to be converted	# 30	8. Enhance?	X	
5. Number of registered students	# 300			
6. Number of potential students that could benefit from the course	# 800			

9. If item 8 = Yes, Specify : **Production of an Electronic Journal**

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT	X				
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 53,950	
11. Total Cost Year Two	$ 53,950	
12. Total Cost Year Three	$ 53,950	
13. Total Cost Year Four	$ 53,950	
!4. Total Cost Year Five	$ 53,950	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 269,750***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 53,950	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	# 4000	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	$ 68	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
Electronic Journal	$ 4,600 per year
	$
	$
Total Enhancement Costs	$ 23,000 over five years

Instructional Formats and Physical Training Requirements

Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine	**Course Number:** A0126

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
52%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
5%	*Panel Discussion*	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
3%	*Group Discussion*	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
40%	***Student Verbal Presentations***	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine			
Course Number: A0126			
Length of course - number of hours of instruction: 72			
Number of Registered Students: 300			
Number of potential students that could benefit from this course: 800			
Instructional goals of the course: To present the latest research and developments in the field of internal medicine.			
Frequency of Course Offering: Once a year			
Continuing Education Credit Offered? yes		**Number:** 21	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Course Technology Match Table

Course (Name) 14th Annual ACP/Army Regional Meeting: Internal Medicine		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing				■		
Group training		■	■			
On-demand availability				■		
Open entry / open exit				■		
Detailed student records		■		■		
Test Security		■				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)		■	■			
Self study				■		
Demonstration						
Exhibit						
Guided Discussion		■	■			
Simulation – knowledge based						
Simulation - hardware		■	■	■		
Problem solving exercises						
Learning to Mastery				■		
Practice / drill				■		
Structured Review				■		
Feedback on performance				■		
Remediation				■		
Group activities/collaborative tasks		■				
Testing Types						
Objective knowledge tests						
Essay		■	■	■		
Performance test –"paper" exercise				■		
Performance test – hardware simulation				■		
Performance test – hardware		■	■	■		
Oral testing		■	■	■		
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation				■		
3D interactive animation				■		
Pre recorded video /films						
Communications						
Audio						
Indirect discourse		■	■			
Assigned reading						
Open Discussion		■	■			
Question and answer opportunities		■	■			

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Asynchronous Course	WEB Based Training			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Asynchronous Course	Computer Based Training			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support tha factor.

Technology Interactivity Factors

Synchronous Course	Video Teletraining	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	X	>>>>>>>>
Graphics		
2D graphics still	X	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction **Course Name**: 14th Annual ACP/Army Regional Meeting: Internal Medicine **Media:** Web Based Training **Level:** 1						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours____100__					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 4 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine
Media: Computer Based Training **Level:** 1

		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___100___					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine		**Course Number:** A0126
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 30
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 21
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 49,350
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 49,350
14	Number of potential students	# 800
15	Average Cost Per Student Divide line 13 by line 14	$ 62

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine	**Course Number:** A0126	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 30
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 21
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 49,350
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 49,350
14	Number of potential students	# 800
15	Average Cost Per Student Divide line 13 by line 14	$ 62

Calculation of Synchronous Training Costs

Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine	**Course Number**: A0126
Labor Costs:	
Development Cost = (320 hrs.) x average hourly rate ($50)	$ 16,000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate ($50)	$ 1650
Non-local Labor Cost = Number of non-local presenters) x (length of the course in days +1) x number of times offered x average daily rate ($400	$ 4000
Local Labor Cost + Number of local presenters x average hourly rate ($50) X 2 X number of times course is offered.	$2800
Total Labor Costs	$ 24,450
Additional Cost (any costs not captured above)	
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	$ 1700
Total Airfare = (Average Round Trip Air Fair x number of non-local presenters) x number of times the course will be presented.	$ 1000
Total dollar amount paid as honorariums	$ -not provided-
(Other) electronic journal	$4,600
Total Estimated Cost: Add Total Per Diem, Air Fair, Labor Costs, and Additional Costs.	
Total Labor Costs	$ 24,450
Total Per Diem	$ 1,700
Total Airfare	$ 1,000
Total paid as honorariums	$ -not provided-
(other) electronic journal	$ 4,600
TOTAL COURSE COST Year 1	$ 31,750
Cost Per Student = Total course costs divided by potential number of students	$ 40

Note:

- The course, if offered sequentially, would require 3.75 days assuming 8 hours attendance per day.
- While the course lists four days, the first day is simply registration which can be done on the morning of the second day.
- Number of presenters determined by assuming one hour per presentation.
- Number of non-local presenters was determined as an equivalent percentage of the current number of non-local presenters excluding fifteen minute presentations and other presentations not recommended for conversion.
- Information on instructor travel not provided in Administrators Survey. No coast to coast travel noted. Assume $500 round trip.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine	**Course Number:** A0126

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT	**X**				
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	987	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	987	
3. Labor hours year 3	987	
4. Labor hours year 4	987	
5. Labor hours year 5	987	
6. Subtotal	4934	
7. Average labor cost	$ 50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$ 246,750	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 4,600	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 4,600	
11. Cost year 3	$ 4,600	Cost for production of Electronic Journal
12. Cost year 4	$ 4,600	
13. Cost year 5	$ 4,600	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 23,00	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 269,750	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 53,950	
17. Potential students year 1	800	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	4000	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 68	Round up to the nearest whole dollar

ARMY FORCE HEALTH PROTECTION CONFERENCE
Conversion Analysis

ARMY FORCE HEALTH PROTECTION CONFERENCE

Course Purpose:

No Government Furnished Information (GFI) was provided on this conference, so the actual purpose is unknown. Our observer noted that the course provided participants with current information affecting the practice and administration of preventive medicine programs in the Army.

Course Content Stability: **High**

No GFI was provided on this conference, so the assessment of high stability is based solely on our observer's assessment of the material.

General Presentation Style: **Distributive**

This course was delivered using primarily lecture (97%) with time for optional questions and answers and panel discussion (3%). The majority of the sessions, while falling within the definition of a lecture (one instructor to many learners), were structured to encourage and facilitate discussion and question and answer sessions.

Instructional Aids:

A combination of overhead slides, computer-generated (Power Point) slides, 35 mm, and handouts supported presentation of the course materials.

Hands-on Activities:

None.

Degree of Instructional Interaction

Because of the large number of participants, instructional interaction was limited to question and answer sessions during the lectures with only a small percentage of attendees being able to participate within the time constraints.

Relevant Instructional Value: **Unknown**

Since the course theme and objectives were not provided, we are unable to assess the instructional value.

Conditional Recommendation:

Convert to Web-Based Training.

Based on the observed content, this conference would be an excellent candidate for conversion to Web-Based Training. However, because we have no current cost or student throughput information, the recommendation is conditional. Our recommendation is based on the nature of the material, most of which is reasonably stable, and the predominance of the lecture method of delivery (97% of presentations), and the heavy use of computer-generated or overhead slides in support of the delivery. It would be important to select a format that would allow questions from participants, and would benefit from a discussion platform. Such a platform would permit interaction between speakers and participants in exploring issues more deeply and in problem-solving to address some of the concerns presented. Most Web-Based presentation platforms have a built-in email capability to ask questions of presenters. In addition, discussion or chat groups could be instituted on existing web sites.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Force Health Protection Conference	**Course Number:** A 0137

1. Instructional goals of the course: Unknown.

2. Frequency of course offering per year	Unknown		**Yes**	**No**
3. Current length of course in hours	28	7. Convert to DL?	X	
4. Number of hours to be converted	28	8. Enhance?		X
5. Number of registered students	150	This is an approximate number.		
6. Number of potential students that could benefit from the course	Unknown			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WTB		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long ___ Synchronous ___

Cost Data

10. Total Cost Year One				$130,200		
11. Total Cost Year Two				$65,100		
12. Total Cost Year Three				$65,100		
13. Total Cost Year Four				$65,100		
14. Total Cost Year Five				$65,100		
15. Total costs year 1 to 5 (Sum of lines 10 through 14)				$390,600		
16. Average cost, years 1 to 5 (Divide value in line 15 by 5)				$78,120		
17. Total potential students over a five-year period. (multiply the number of potential students [item 6 above] by 5.)				Unknown		
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)				Unknown		

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancements	**Cost**
Total Enhancement Costs	

Instructional Formats and Physical Training Requirements

Course Name: Army Force Health Protection Conference	**Course Number:** A 0137

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
97%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
3%	*Panel Discussion*	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Army Force Health Protection Conference			
Course Number: A 0137			
Length of course - number of hours of instruction: 28			
Number of Registered Students: approximately 150			
Number of potential students that could benefit from this course: Unknown			
Instructional goals of the course: Unknown			
Frequency of Course Offering: Unknown			
Continuing Education Credit Offered? Unknown		**Number:** Unknown	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	✓
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Course Technology Match Table

Course: Army Force Health Protection Conference		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	✓					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	✓					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side, then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Army Force Health Protection Conference	**Course Number:** A 0137			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		✓	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Army Force Health Protection Conference	**Course Number:** A 0137			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		✓	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Web Based Training			
Course Name: Army Force Health Protection Conference		Course Number: A 0137	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	28
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	20
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	$91,140.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	$0.00
13	Total Cost - Add lines 6 and 12.	$	$91,140.00
14	Number of potential students.	$	Unknown
15	Average Cost Per Student Divide line 13 by line 14	$	Unknown

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: CBT Multimedia			
Course Name: Army Force Health Protection Conference		Course Number: A 0137	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	28
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	20
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	$91,140.00
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	$0.00
13	Total Cost - Add lines 6 and 12.	$	$91,140.00
14	Number of potential students.	$	Unknown
15	Average Cost Per Student Divide line 13 by line 14	$	Unknown

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Medical Specialist Corps Executive Management Course	**Course Number**: A 0624

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**		**Source**
1. Labor Hours Year 1	2604		*Course Technology Match Table, Technology Interactivity Factors Table*
2. Labor Hours Year 2	1302		
3. Labor Hours Year 3	1302		
4. Labor Hours Year 4	1302		
5. Labor Hours Year 5	1302		
6. Subtotal	7812		For the purposes of this analysis, we will assume that there is only a 50% turnover in course materials in years two through five.
7. Average Labor Cost per hour	$50		
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$390,600		
Additional Development Costs By Year			
9. Cost year 1			*Data to Support Cost Analysis Worksheet*
10. Cost year 2			
11. Cost year 3			
12. Cost year 4			
13. Cost year 5			
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$0		
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$390,600		
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$78,120		
17. Potential students year 1.	Unknown		*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	Unknown		
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	Unknown		*Round up to the nearest whole dollar.*

Multidisciplinary Approach to Head and Neck Trauma
Conversion Analysis

MULTIDISCIPLINARY APPROACH TO HEAD AND NECK TRAUMA

Course Purpose:

Gather specialists concerned with trauma to the head and neck. Discuss recent techniques, research and other critical issues.

Course Content Stability: **Low**

Topics will change yearly. Content and topics will change depending on current research and developments.

General Presentation Style: **Distributive**

The information was delivered using a lecture format as the primary vehicle in which one (1) instructor presented information to many learners.

Instructional Aids:

Heavy reliance on 35 mm slides. In addition, most presenters provided handouts with supplemental information relevant to the topic they were addressing.

Hands-on Activities:

None

Degree of Instructional Interaction:

The presentations moved quickly. There was no opportunity for the students to ask questions during the presentations. At the end of each half-day, the students could ask questions of available speakers in a question and answer session. The question/answer periods were limited by the availability of the presenters at the question period.

Relevant Instructional Value: **High**

Information presented was relevant to both peacetime and wartime activities of the military participants. The course was designed for and presented to physicians involved in the care of patients who have sustained trauma to the head and neck, primarily otolaryngologists/ear, nose and throat physicians. Content was not military specific.

Recommendation:

Based on information received from course personnel, do not convert to Distance Learning. See Note below.

Technically, this course is a good candidate for conversion to Web based or computer based training. However, if the cost is to be amortized only among the small number of military participants, it would not be cost-effective. An estimated 45 civilian attendees paid a registration fee of $150 and military attendees paid a $75 registration fee. Fourteen vendors (pharmaceutical companies, book publishers, etc.) provided "monetary effort" of approximately $500 each. Vendor funds were used for daily breakfast buffets during which a speaker presented and break-time snacks. Considering civilian registration and vendor contributions, a total of approximately $13,750 in funds above and beyond those provided through the PPSCP were made available to conduct the course. (Military registration was not considered in this figure, because it was reimbursed to the participants when they filed their travel vouchers.) Because vendor contribution might be limited when converting the course, and potential for collection of civilian registration fees would be eliminated, it appears that the relative costs of conversion would increase. However, if it were not held in residence, there would be no requirement for snacks and breakfast. Web-based or computer-based training is estimated to be $21,385 per year, which is approximately $6,000 per year more than the estimated current cost of $16,000 (not counting food and snacks). VTT development would not be possible at Madigan Army Medical Center since it is not a Distance Learning Center and could not originate VTT training. Costs for conversion to Web-based training at Level 1 are provided on the following sheets.

NOTE: The content and structure of this course is ideal for conversion to Web-based training. The recommendation not to convert was made based on the cost analysis data provided by the Course Project Officer that results in a per-student conversion figure that is not cost-effective. The potential target audience identified by the Project Officer was something under 100 (apparently reflecting only the size of the military ENT physician specialty group). However, the material presented (primarily new techniques and procedures for dealing with acute and long-term treatment of injuries to the head and neck) is applicable to a much larger audience. This includes military and civilian physicians practicing worldwide in Trauma/ Emergency Department settings, Oral and Plastic Surgeons, Dentists, and other professional and paraprofessionals dealing with this patient population. In fact, paramedics from the Madigan Emergency Department were invited to attend this course. If this wider audience is considered, the per-student cost drops dramatically and would most certainly support conversion to distance learning.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Multidisciplinary Approach to Head and Neck Trauma	**Course Number:** A0156

1. Instructional goals of the course: Gather specialists concerned with trauma to the head and neck. Discuss recent techniques, research and other critical issues.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 13	7. Convert to DL?		X
4. Number of hours to be converted	# 0	8. Enhance?		X
5. Number of registered students	# 88			
6. Number of potential students that could benefit from the course	# 125			

9. If item 8 = Yes, Specify:

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High		
Other					

Cost Estimate for the Use of Web Based Training, Level 1

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 21,385	
11. Total Cost Year Two	$ 21,385	
12. Total Cost Year Three	$ 21,385	
13. Total Cost Year Four	$ 21,385	
! 4. Total Cost Year Five	$ 21,385	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 106,925***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 21,385	
17. Total potential students over a five-year period. (multiply the number of potential students (item 6 above) by 5.)	# 625	#310 (military)
18. Average cost per potential student over 5-year period. (divide the value in line 15 by the value in line 17)	$ 171.08	$344.91 (military)

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: Multidisciplinary Approach to Head and Neck Trauma	**Course Number:** A0156

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Multidisciplinary Approach to Head and Neck Trauma			
Course Number: A0156			
Length of course - number of hours of instruction: 13			
Number of Registered Students: 88 (approximately 50% military)			
Number of potential students that could benefit from this course: 125 (assume 62 military)			
Instructional goals of the course: Gather specialists concerned with trauma to the head and neck. Discuss recent techniques, research and other critical issues.			
Frequency of Course Offering: Once a year			
Continuing Education Credit Offered? Yes		**Number:** 13	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Note: Video was used during one thirty minute presentation (>4%) and will not be used to determine technology or level of interactivity.

Course Technology Match Table

Course Multidisciplinary Approach to Head and Neck Trauma		**Technologies**				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Multidisciplinary Approach to Head and Neck Trauma	**Course Number:** A0156			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Multidisciplinary Approach to Head and Neck Trauma	**Course Number:** A0156			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: Multidisciplinary Approach to Head and Neck Trauma
Media: WEB Based Training **Level:** 1

		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours____100__					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: Multidisciplinary Approach to Head and Neck Trauma
Media: Computer Based Training **Level:** 1

		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours_____					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: Multidisciplinary Approach to Head and Neck Trauma	Course Number: A0156	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 13
5	Compression: If conversions to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 9.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 21,385
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 21,385
14	Number of potential students	# 125 or 62
15	Average Cost Per Student Divide line 13 by line 14	$ 171.08 / 344.91

Note: 125 total potential participants but less than half are military or government civilian. Web based training for military shown in the second number and cost figure in lines 14 and 15.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: Multidisciplinary Approach to Head and Neck Trauma	**Course Number**: A0156	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 13
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 9.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 21,385
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 21,385
14	Number of potential students	# 125 or 62
15	Average Cost Per Student Divide line 13 by line 14	$ 171.08 / 344.91

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Multidisciplinary Approach to Head and Neck Trauma	**Course Number:** A0156

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Do Not Convert**
WBT					**X**
CBT					
VTT	Low		High		
Other					

Cost Estimate for the Use of Web Based Training, Level 1		
Cost Factors	**Values**	**Source**
1. Labor hours year 1	427.7	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	427.7	
3. Labor hours year 3	427.7	
4. Labor hours year 4	427.7	
5. Labor hours year 5	427.7	
6. Subtotal	2138.5	
7. Average labor cost	$ 50	
8. Total labor Cost over 5-yr. period. Multiply line 6 by line 7	$ 106,925	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$	
11. Cost year 3	$	
12. Cost year 4	$	
13. Cost year 5	$	
14. Total Additional Costs. Sum lines 9 to 13 and enter on line 14	$	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 106,925	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 21,385	
17. Potential students year 1	125 / 62	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	625 / 310	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 171.08 / 34491	

Endodontics for the General Dentist
Conversion Analysis

ENDODONTICS FOR THE GENERAL DENTIST

Course Purpose:

The course is designed to increase the endodontic knowledge and clinical expertise of Army general dentists so that the dentist can provide a higher quality of endodontic dental care for patients. Emphasis is placed upon practicing within the military environment.

Course Content Stability: **Moderate**

The majority of the course focuses on advances in the field and research findings. Other presentations (about 1/3) focused on areas that may not be 'new" but are rarely dealt with or seen, to reinforce good clinical practice.

General Presentation Style: **Distributive**

The standard method of presentation was lecture. Though the students asked few questions, all instructors were willing to accept questions during and immediately their presentations.

Instructional Aids:

Two 35mm slide projectors and wireless microphones and speakers supported all presentations.

Hands-on Activities:

One demonstration session was given. This was supported partly by manufacturers of equipment. Some students were able of operate the equipment, most observed.

Degree of Instructional Interaction

While opportunity did exist to ask questions and exchange views with the presenters most students seemed to prefer to talk to the presenter after the course or during the breaks. Generally the students observed and some took notes. Yet the level of retention was probably high since the work involved was directly related to what the students do.

Relevant Instructional Value: **High**

The content was clearly focused and within the criteria for a PPSCP course. Students were exposed to new concepts/approaches. This course did not wander off topic - probably due to the fact that the Endodontics Residency Program conducted it. The course directors simply followed the same good practices followed at the school.

Recommendation

Primary Recommendation: Convert to VTT.
Secondary Recommendation: Convert to WBT.
This course is ideal for Web based training (WBT) as well as VTT. It is coherent and it is not dependent on hands-on activities. On the Web, the course could easily be made highly interactive, while as a VTT course, the actual level of student /instructor interactivity would not be reduced. The major difference is the overall cost. As a Web based training course, the course would cost $325,500 over five years to provide yearly training for every dentist in the Army at a cost of $70 a year. VTT could provide the same training at a cost of $14 per student. Other than cost, the most significant difference between the two approaches is a loss of flexibility if VTT is used. As a Web based training course, the course would be available on demand, at any time, simply by logging on and registering on-line. As a VTT based course, the course would be available once live. For those who were unable to view the course through VTT, it could be provided with a set of VCR tapes. The advantage of VTT is cost and the advantage of WBT is flexibility. Our first choice of VTT is based on lower cost to the Army.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name:	**Course Number:**
Endodontics for the General Dentist	A0202

1. Instructional goals of the course : Provide the general dentist with increased knowledge of the art and science of Endodontics. Provide practical knowledge and skills that can be applied in their clinical practice.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 19	7. Convert to DL?	X	
4. Number of hours to be converted	# 19	8. Enhance?		X
5. Number of registered students	# 70			
6. Number of potential students that could benefit from the course	# 932			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low **X**		High		
Other					

Labor Hours Estimation Method: Short __ Long__ Synchronous _X__

Cost Data		
10. Total Cost Year One	$ 19,150	
11. Total Cost Year Two	$ 11,150	
12. Total Cost Year Three	$ 11,150	
13. Total Cost Year Four	$ 11,150	
!4. Total Cost Year Five	$ 11,150	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 63,750***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 12,750	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	# 4660	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	$ 14	

Additional Hardware/Software Required		
Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: Endodontics for the General Dentist	**Course Number:** A0202

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
76%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
11%	*Demonstration*	Students observe the application of knowledge. In this case, students are not participating themselves.	?
13%	***Student Verbal Presentations***	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Endodontics for the General Dentist			
Course Number: A0202			
Length of course - number of hours of instruction: 19			
Number of Registered Students: 70			
Number of potential students that could benefit from this course: (all dentists)			
Instructional goals of the course: Provide the general dentist with increased knowledge of the art and science of Endodontics. Provide practical knowledge and skills that can be applied in their clinical practice.			
Frequency of Course Offering: Once a year			
Continuing Education Credit Offered? Yes		**Number:** 32	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration	X	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Course Technology Match Table

Course (Name) Endodontics for the General Dentist		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration	X					
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation						
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Endodontics for the General Dentist	**Course Number:** A0202			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration		X	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation		>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Endodontics for the General Dentist	**Course Number:** A0202			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration		X	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation		>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Endodontics for the General Dentist	**Course Number:** A0202	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration	X	>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation		>>>>>>>>
Graphics		
2D graphics still	X	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Endodontics for the General Dentist **Media:** Web Based Training **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___200___					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	*24*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*93*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Endodontics for the General Dentist **Media:** Computer Based Training **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___200___					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	*24*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*93*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: Endodontics for the General Dentist	**Course Number:** A0202	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 4650
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 19
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 14
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 65,100
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$
14	Number of potential students	# 932[1]
15	Average Cost Per Student Divide line 13 by line 14	$ 70

[1] The course is considered appropriate for all dentists. The estimated number of dentists in the Army in 1999 will be 932.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: Endodontics for the General Dentist	**Course Number:** A0202	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 4650
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 19
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 14
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line **4** if not a conversion to asynchronous delivery. Put the results on line 6.	$ 65,100
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$
14	Number of potential students	# 932
15	Average Cost Per Student: Divide line 13 by line 14	$ 70

Calculation of Synchronous Training Costs

Course Name: Endodontics for the General Dentist	**Course Number**: A0202
Labor Costs:	
Development Cost = (320 hrs.) x average hourly rate ($50)	$ 16,000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate ($50)	$ 1150
Non-local Labor Cost = Number of non-local presenters) x (length of the course in days +1) x number of times offered x average daily rate ($400	$ 400
Local Labor Cost + Number of local presenters x average hourly rate ($50) X 2 X number of times course is offered.	$ 1,100
Total Labor Costs	$ 18,650
Additional Cost (any costs not captured above)	
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	$ 500
Total Air Fair = (Average Round Trip Air Fair x number of non-local presenters) x number of times the course will be presented.	$ -0-
Total dollar amount paid as honorariums	$ -0-
(Other)	
Total Estimated Cost: Add Total Per Diem, Airfare, Labor Costs, and Additional Costs.	
Total Labor Costs	$ 18,650
Total Per Diem	$ 500
Total Airfare	$ -0-
Total paid as honorariums	$ -0-
(other)	$ -0-
TOTAL COURSE COST Year 1	$ 19,150
Cost Per Student = Total course costs divided by potential number of students	$ 21

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Endodontics for the General Dentist			**Course Number:** A0202		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low **X**		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	320	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	160	
3. Labor hours year 3	160	
4. Labor hours year 4	160	
5. Labor hours year 5	160	
6. Subtotal	960	
7. Average labor cost	$50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$ 48,000	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 3,150	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 3,150	
11. Cost year 3	$ 3,150	
12. Cost year 4	$ 3,150	
13. Cost year 5	$ 3,150	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 15,750	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 63,750	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 12.750	
17. Potential students year 1	932	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	4660	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 14	Round up to the nearest whole dollar

Restorative Dentistry and Dental Materials Conversion Analysis

RESTORATIVE DENTISTRY AND DENTAL MATERIALS

Course Purpose:	
To provide a review of current techniques, and recent advances, trends, and developments in restorative dentistry and dental materials.	
Course Content Stability:	**Low**
Due to time limitations, all topics cannot be presented on a yearly basis. Therefore, not only will content change depending on current research and developments, but topics will change as well.	
General Presentation Style:	**Lecture**
The entire course is delivered as lectures augmented by slides or overheads. That is, the information was delivered using a lecture format as the primary vehicle in which one (1) instructor presented information to many learners. All students attend all lectures. Their are no breakout sessions	
Instructional Aids:	
There was extensive use of 35 mm slides providing images of teeth, dental casts, tools, and treatment materials. In addition, each of the instructors provided handouts with supplemental information relevant to the topic they were addressing.	
Hands-on Activities:	
None	
Degree of Instructional Interaction:	
There were opportunities for the students to ask questions, and the degree to which this interaction was engaged in varied from instructor to instructor. In general, these questions concerned points of clarification. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.	
Relevant Instructional Value:	**High**
This course provides a significant amount of information that is relevant to the professional performance of the attendees.	
Recommendation:	
Convert to Video Teletraining This course could be converted to almost any distance learning format. However, given that the level of interactivity is low, it is ideal for conversion to Video Teletraining (VTT). As is currently done, the course can be presented once to all participants through VTT. While approximately 120 individuals currently take part, the course is appropriate to some 450 individuals. This approach will provide an extremely low per student cost while expanding the number of students able to access this information. Only one hour of the current instruction is not recommended for conversion to VTT. This hour focuses on administrative and career issues. Recommend that this topic be added to a Web page that could be updated as often as necessary.	

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Restorative Dentistry and Dental Materials	**Course Number:** A0208

1. Instructional goals of the course : To provide a review of current techniques, recent advances, trends and developments in restorative dentistry and dental materials. Theme "Establishing a Basic Foundation for Oral Restoration."

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 28	7. Convert to DL?	X	
4. Number of hours to be converted	# 27	8. Enhance?		X
5. Number of registered students	# 120			
6. Number of potential students that could benefit from the course	# 450			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low **X**		High		
Other					

Labor Hours Estimation Method: Short _ Long__ Synchronous __X_

Cost Data		
10. Total Cost Year One	$ 36,590	
11. Total Cost Year Two	$ 28,590	
12. Total Cost Year Three	$ 28,590	
13. Total Cost Year Four	$ 28,590	
!4. Total Cost Year Five	$ 28,590	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 150,950***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 30,190	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	# 2250	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	**$ 68**	

Additional Hardware/Software Required		
Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Requirements of Training

Course Name: Restorative Dentistry and Dental Materials	**Course Number:** A0208

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
95%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Restorative Dentistry and Dental Materials			
Course Number: A0208			
Length of course - number of hours of instruction: - 28 hours			
Number of Registered Students: 120			
Number of potential students that could benefit from this course: 450			
Instructional goals of the course: To provide a review of current techniques, recent advances, trends and developments in restorative dentistry and dental materials. Theme "Establishing a Basic Foundation for Oral Restoration."			
Frequency of Course Offering: Once a year			
Continuing Education Credit Offered? Yes		**Number:** 28	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities / collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			

Course Technology Match Table

Course Name: Restorative Dentistry and Dental Materials		**Technologies**				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Restorative Dentistry and Dental Materials	**Course Number: A0208**			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
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Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
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Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
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2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

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Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Restorative Dentistry and Dental Materials	**Course Number: A0208**			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
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Group activities/collaborative tasks				
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Pre recorded video /films			>>>>>>>>	>>>>>>>>
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Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support tha factor.

Technology Interactivity Factors

Course Name: Restorative Dentistry and Dental Materials	**Course Number:** A0208	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	X	>>>>>>>>
Graphics		
2D graphics still	X	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>>>>
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Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: Restorative Dentistry		**Media:** Web Based Training			**Level:** 1	
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*,25*	*.15*	
2	Multiply line 1 by average * hours____100__					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: Restorative Dentistry		**Media:** Computer Based Training			**Level:** 1	
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*,25*	*.15*	
2	Multiply line 1 by average * hours____100__					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: Restorative Dentistry	**Course Number:** A0208	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 27
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 19
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 44,650
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$
14	Number of potential students	# 450
15	Average Cost Per Student:: Divide line 13 by line 14	$ 100

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: Restorative Dentistry and Dental Materials	**Course Number:** A0208	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 27
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 19
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 44,650
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$
14	Number of potential students	# 450
15	Average Cost Per Student:: Divide line 13 by line 14	$ 100

Calculation of Synchronous Training Costs

Course Name: Restorative Dentistry and Dental Materials	**Course Number**: A0208
Labor Costs:	
Development Cost = (320 hrs.) x average hourly rate ($50)	$ 16,000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate ($50)	$ 1550
Non-local Labor Cost = Number of non-local presenters) x (length of the course in days +1) x number of times offered x average daily rate ($400	$ 8,000
Local Labor Cost + Number of local presenters x average hourly rate ($50) X 2 X number of times course is offered.	$ 700
Total Labor Costs	$ 26,250
Additional Cost (any costs not captured above)	
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	$ 2,540
Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.	$ 3,900
Total dollar amount paid as honorariums	$ 3,900
(Other)	
Total Estimated Cost: Add Total Per Diem, Airfare, Labor Costs, and Additional Costs.	
Total Labor Costs	$ 26,250
Total Per Diem	$ 2,540
Total Airfare	$ 3,900
Total paid as honorariums	$ 3,900
(other)	$ N/A
TOTAL COURSE COST Year 1	$ 36,590
Cost Per Student = Total course costs divided by potential number of students	$ 82

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Restorative Dentistry & Dental Materials	**Course Number:** A0208

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT	**X**				
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	893	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	893	
3. Labor hours year 3	893	
4. Labor hours year 4	893	
5. Labor hours year 5	893	
6. Subtotal	4465	
7. Average labor cost	$50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$223,250	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$	
11. Cost year 3	$	
12. Cost year 4	$	
13. Cost year 5	$	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 0	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 223,250	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 44,650	
17. Potential students year 1	450	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	2250	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 100	Round up to the nearest whole dollar

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Restorative Dentistry & Dental Materials	**Course Number:** A0208

Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT					
CBT	X				
VTT	Low		High		
Other					

Cost Factors	Values	Source
1. Labor hours year 1	893	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	893	
3. Labor hours year 3	893	
4. Labor hours year 4	893	
5. Labor hours year 5	893	
6. Subtotal	4465	
7. Average labor cost	$50	
8. Total labor cost over 5 yr. period. Multiply line 6 by line 7	$223,250	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$	
11. Cost year 3	$	
12. Cost year 4	$	
13. Cost year 5	$	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 0	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 223,250	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 44,650	
17. Potential students year 1	450	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	2250	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 100	Round up to the nearest whole dollar.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Restorative Dentistry & Dental Materials	**Course Number:** A0208

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low **X**		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	525	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	365	
3. Labor hours year 3	365	
4. Labor hours year 4	365	
5. Labor hours year 5	365	
6. Subtotal	1,985	
7. Average labor cost	$50	
8. Total labor cost over 5 yr. period. Multiply line 6 by line 7	$ 99,250	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 10.340	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 10,340	
11. Cost year 3	$ 10,340	
12. Cost year 4	$ 10,340	
13. Cost year 5	$ 10,340	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 51,700	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 150,950	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 30,190	
17. Potential students year 1	450	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	2250	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 68	Round up to the nearest whole dollar.

Note: For VTT Use 320 hrs prep time for year one and 160 hrs prep time for years 2 to 5
Labor hours use the following

- Labor Hours = Prep time + (total studio time + 1 hr for every day the course is offered) + (number of non-local presenters) x (length of course in days + 1 travel day x 8) x (the number of times the course is offered) +
  (number of local presenters x 2) x number of times the course is offered
  Additional Costs = (total air fair + total per diem + total honorariums) x 5

1998 Military Veterinary Medical Seminar
Conversion Analysis

1998 Military Veterinary Medical Seminar
The purpose of the course is to update attendees on Veterinary Corps issues and technical skills. The theme of the seminar was "Support to Contingencies-Military and Civilian."
Course Content Stability: Low
The focus is on the latest developments in the area, and therefore the topics change each year.
General Presentation Style: Distributive
This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. Approximately 95% of the instruction was delivered using a basic lecture format. Approximately 2% used film/video as part of the presentation, there was one demonstration/shop activity and one poster session.
Instructional Aids:
Most of the speakers used overhead slides, 35mm slides, or PowerPoint presentation files to aid them in their instruction.
Hands-on Activities:
None
Degree of Instructional Interaction:
There were opportunities for the students to ask questions, and the degree to which this interaction was engaged in varied from instructor to instructor. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.
Relevant Instructional Value: Low
The assessment or "Low Instructional Value" is based strictly on the assessment that less than 30% of the sessions appeared to support the stated objective/theme of the conference. Of 24 general sessions designed either exclusively for officer attendance or in combination with warrant officers and 91 R/T NCOs, only 11 appeared to relate to the "Contingencies and Disasters" theme. Of the 26 Saturday breakout sessions designed primarily for officers and warrant officers, only six appeared to be related to the theme. Of the 15 sessions on the first day of the course designated for officers and warrant officers, only two appeared to be loosely related to the theme. This equates to 29.2% of the sessions that appeared to relate to the objective. When broken down into hours, this equates to approximately nine of the 30 hours. Additionally, the welcome letter to attendees stated that in addition to the presentations supporting the seminar theme, "...subject matter experts in the functional areas of our VETCOM mission will provide numerous presentations, but they are only intended to be catalysts to promote discussion and information sharing." This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. The main thing to be gained from ***attending*** this course was an opportunity for informal networking, and making contacts among peers.
Recommendation:
Convert portions relating to the theme to Web-Based Training. Those portions that do not meet the objectives of the theme can be eliminated or presented via the web in a non-learning format. Because the content of this course will change every year, the actual portion to be designed as distance learning versus that presented in another format will have to be made during the analysis phase. This "course" is actually more of a conference insofar as there is no structured set of intended learning outcomes unified by a specific theme. The information itself could easily be presented in the form of Web Based training accompanied by an electronic journal. As such, the entire population could have access to the information, and the presenters could have an "electronic publication" to add to their vitas. In this way, the educational value of the course could be increased insofar as students could participate in interactive activities and be assessed using a distance learning technology.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 1998 Military Veterinary Medical Seminar	**Course Number:** A 0306

1. Instructional goals of the course: The purpose of the course is to update attendees on Veterinary Corps issues and technical skills. The theme of the seminar was "Support to Contingencies-Military and Civilian."

			Yes	**No**
2. Frequency of course offering per year	1			
3. Current length of course in hours	30	7. Convert to DL?	X	
4. Number of hours to be converted	9[1]	8. Enhance?		X
5. Number of registered students	360			
6. Number of potential students that could benefit from the course	500			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X__ Long ___ Synchronous ___

Cost Data

10. Total Cost Year One				$29,295		
11. Total Cost Year Two				$14,648		
12. Total Cost Year Three				$14,648		
13. Total Cost Year Four				$14,648		
14. Total Cost Year Five				$14,648		
15. Total costs year 1 to 5 (Sum of lines 10 through 14)				$87,887		
16. Average cost, years 1 to 5 (Divide value in line 15 by 5)				$17,578		
17. Total potential students over a five-year period. (multiply the number of potential students [item 6 above] by 5.)				2,500		
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)				$35.16		

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancements	**Cost**
Electronic Journal	
Total Enhancement Costs	

[1] Only nine of the 30 hours appeared to support the objective and theme of the seminar.

Instructional Formats and Physical Training Requirements

Course Name: 1998 Military Veterinary Medical Seminar	**Course Number:** A 0306

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
94%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
2%	*Poster Session*	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
2%	*Demonstration*	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
2%	**Shop Activity**	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: 1998 Military Veterinary Medical Seminar			
Course Number: A 0306			
Length of course - number of hours of instruction: 30			
Number of Registered Students: 360			
Number of potential students that could benefit from this course: 500			
Instructional goals of the course: The purpose of the course is to update attendees on Veterinary Corps issues and technical skills. The theme of the seminar was "Support to Contingencies-Military and Civilian."			
Frequency of Course Offering: Annual			
Continuing Education Credit Offered? Yes		**Number:** 15	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration	✓	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	✓
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			

Course Technology Match Table

Course 1998 Military Veterinary Medical Seminar		**Technologies**				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing				■		
Group training		■	■			
On-demand availability				■		
Open entry / open exit				■		
Detailed student records		■		■		
Test Security		■				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)		■	■			
Self study				■		
Demonstration	✓					
Exhibit						
Guided Discussion		■	■			
Simulation – knowledge based						
Simulation - hardware		■	■	■		
Problem solving exercises						
Learning to Mastery				■		
Practice / drill				■		
Structured Review				■		
Feedback on performance				■		
Remediation				■		
Group activities/collaborative tasks		■				
Testing Types						
Objective knowledge tests						
Essay		■	■	■		
Performance test –"paper" exercise				■		
Performance test – hardware simulation				■		
Performance test – hardware		■	■	■		
Oral testing		■	■	■		
No testing/Student course evaluation	✓					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation				■		
3D interactive animation				■		
Pre recorded video /films	✓					
Communications						
Audio						
Indirect discourse		■	■			
Assigned reading						
Open Discussion		■	■			
Question and answer opportunities		■	■			

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: 1998 Military Veterinary Medical Seminar	**Course Number:** A0306			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration		✓	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		✓	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: 1998 Military Veterinary Medical Seminar	**Course Number:** A0306			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration		✓	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		✓	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: 1998 Military Veterinary Medical Seminar						
		Media: Web Based			**Level:** 2	
		Analysis	Design	Development	Implementation	Sum
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: 1998 Military Veterinary Medical Seminar						
		Media: CBT Multimedia			**Level:** 2	
		Analysis	Design	Development	Implementation	Sum
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Web Based Training			
Course Name: 1998 Military Veterinary Medical Seminar		**Course Number:** A0416	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	9
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	6.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	29,295.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	29,295.00
14	Number of potential students.	#	500
15	Average Cost Per Student Divide line 13 by line 14	$	58.59

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: CBT Multimedia			
Course Name:1998 Military Veterinary Medical Seminar		Course Number: A 0306	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	9
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	6.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	29,295.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	29,295.00
14	Number of potential students.	#	500
15	Average Cost Per Student Divide line 13 by line 14	$	58.59

Cost Estimate for a Single Course Over a Five Year Period

Course Name: 1998 Military Veterinary Medical Seminar			**Course Number**: A 0306		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**		**Source**
1. Labor Hours Year 1	586		*Course Technology Match Table, Technology Interactivity Factors Table*
2. Labor Hours Year 2	293		
3. Labor Hours Year 3	293		
4. Labor Hours Year 4	293		
5. Labor Hours Year 5	293		
6. Subtotal	1,758		
7. Average Labor Cost per hour	$50		
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$87,900		
Additional Development Costs By Year			
9. Cost year 1	$0		*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$0		
11. Cost year 3	$0		
12. Cost year 4	$0		
13. Cost year 5	$0		
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$0		
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$87,900		
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$17,580		
17. Potential students year 1.	500		*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	2500		
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	$35		*Round up to the nearest whole dollar.*

Military Veterinary Foreign Animal Diagnostics Course Analysis

MILITARY VETERINARY FOREIGN ANIMAL DISEASE DIAGNOSTICS

Course Purpose:

To teach military veterinarians about various foreign animal diseases that are a serious threat to the United States' animal industry through the clinical presentation of these diseases and through lectures on their role in the event of a foreign animal disease outbreak.

Course Content Stability: **High**

Although new findings can be presented, the general content of the course remains relatively stable. Changes may be made to reflect new threats from various diseases that may enter the United States.

General Presentation Style: **Lecture/Lab/Hands-on**

The course was mostly lecture-format, followed by laboratory sessions. Interjected between the lecture/labs were a variety of seminars, panel discussions, and case studies.

Instructional Aids:

Overhead slides, videos, and lab equipment were used to fully prepare the vets in their abilities to recognize these diseases.

Hands-on Activities:

Hands-on laboratory activities are necessary to develop a full understanding of the progression of each disease. Students see the disease in the live animal and watch clinical signs develop day to day.

Degree of Instructional Interaction:

Students participated in the evaluation and necropsy of the animals.

Relevant Instructional Value: **High**

The FADDL laboratory is the only location in the US where these diseases can be observed and studied due to their highly contagious nature. This prepares the vets to recognize harmful diseases whose presence could cause serious illness.

Recommendation:

Do not convert the course to a distance learning format.

It is doubtful that this could take the place of actual lecture time since the lab-experience benefits from a contiguous presentation of the relevant material (i.e. the students review the material relevant to a particular lab exercise immediately before participating). Whether any lecture could be *replaced* would have to be decided by a Subject Matter Expert (a veterinarian that teaches the course).

Requirements of Distance Learning Technology

At the present time, students receive reading materials to complete before attending this course. This pre-course material could be converted to a multimedia format with the intent to *supplement* and *enhance* the learning experience. No cost or time savings would be expected from such a conversion.

Patient Administration Symposium
Conversion Analysis

Patient Administration Symposium
The purpose of this course is to provide conceptual and operational overviews of the changing military health system to leaders in the Patient Administration Community and to provide officers the opportunity to receive hands-on training on new/emerging health systems and applications..
Course Content Stability: **Low**
Due to technological advances, the material presented is based on current systems and trends. Some of the topics will remain the same, but information is updated and new capabilities of systems are demonstrated.
General Presentation Style: **Distributive**
The course was primarily lecture format with an opportunity for questions and answers. In some cases the lecture was supported by a demonstration.
Instructional Aids:
The majority of the speakers used PowerPoint slides to support their presentations. A significant portion of the speakers also provided the students with handouts. Laptop computers were used in two presentations.
Hands-on Activities:
There were two (7% of course instructional time) hands-on learning experiences focusing on the implementation of new or revised software programs. These could easily be simulated (or emulated) in either a CBT or WBT environment.
Degree of Instructional Interaction
There was an opportunity to ask questions following presentations. The exchanges were informational.
Relevant Instructional Value: **Moderate**
Although the material presented reflected the latest information available, there was a lack of formal objectives and a clear focus in the curriculum.
Recommendation
Convert to Web-Based Training. The instructional value of this course would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Hands-on activities in this particular case lend themselves easily to a Web environment since they involved instruction on computer software.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Patient Administration Symposium	**Course Number:** A0416

1. Instructional goals of the course: To provide conceptual and operational overviews of the changing military health system to leaders in the Patient Administration Community and to provide officers the opportunity to receive hands-on training on new/emerging health systems and applications.

			Yes	**No**
2. Frequency of course offering per year	1			
3. Current length of course in hours	23	7. Convert to DL?	X	
4. Number of hours to be converted	23	8. Enhance?		X
5. Number of registered students	54			
6. Number of potential students that could benefit from the course	150			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X__ Long ___ Synchronous ___

Cost Data

10. Total Cost Year One				$103,463		
11. Total Cost Year Two				$103,463		
12. Total Cost Year Three				$103,463		
13. Total Cost Year Four				$103,463		
14. Total Cost Year Five				$103,463		
15. Total costs year 1 to 5 (Sum of lines 10 through 14)				$517,313		

16. Average cost, years 1 to 5 (Divide value in line 15 by 5)	$103,463	
17. Total potential students over a five year period. (multiply the number of potential students [item 6 above] by 5.)	750	
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)	$690	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancements	**Cost**
Total Enhancement Costs	

Instructional Formats and Physical Training Requirements

Course Name: Patient Administration Symposium	**Course Number:** A0416

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Patient Administration Symposium			
Course Number: A0416			
Length of course - number of hours of instruction: 22.25			
Number of Registered Students: 54			
Number of potential students that could benefit from this course: 150			
Instructional goals of the course: To provide nurse clinicians and middle managers, active duty and civilians with current concepts, trends and issues affecting the delivery of care as the military health care system transitions into the new millennium. The course provides participants with knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices.			
Frequency of Course Offering: Annual			
Continuing Education Credit Offered? Yes		**Number:** 26	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	✓
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			

Course Technology Match Table

Course Patient Administration Symposium		Technologies				
Administrative Requirements	**Check**	**CBT**	**WEB**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill	✓					
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	✓					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Patient Administration Symposium	**Course Number:** A0416			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Patient Administration Symposium	**Course Number:** A0416			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: Patient Administration Symposium						
		Media: Web Based			Level: 2	
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: Patient Administration Symposium						
		Media: CBT Multimedia			Level: 2	
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Web Based Training			
Course Name: Patient Administration Symposium		**Course Number:** A0416	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	23
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	16.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	$74,865.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	$0.00
13	Total Cost - Add lines 6 and 12.	$	$74,865.00
14	Number of potential students.	$	150
15	Average Cost Per Student Divide line 13 by line 14	$	$499.10

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Computer Based Training			
Course Name: Patient Administration Symposium		**Course Number:** Patient Administration Symposium	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	23
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	16.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	$74,865.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	$0.00
13	Total Cost - Add lines 6 and 12.	$	$74,865.00
14	Number of potential students.	$	150
15	Average Cost Per Student Divide line 13 by line 14	$	$499.10

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Patient Administration Symposium			**Course Number**: A0416		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**		**Source**
1. Labor Hours Year 1	2,069		*Course Technology Match Table, Technology Interactivity Factors Table*
2. Labor Hours Year 2	2,069		
3. Labor Hours Year 3	2,069		
4. Labor Hours Year 4	2,069		
5. Labor Hours Year 5	2,069		
6. Subtotal	10,346		
7. Average Labor Cost per hour	$50		
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$517,313		
Additional Development Costs By Year			
9. Cost year 1	$0		*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$0		
11. Cost year 3	$0		
12. Cost year 4	$0		
13. Cost year 5	$0		
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$0		
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$517,313		
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$103,463		
17. Potential students year 1.	150		*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	750		
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	$690		*Round up to the nearest whole dollar.*

Health Facility Life Cycle Acquisition Conversion Analysis

JOINT HEALTH FACILITY LIFE CYCLE ACQUISITION

Course Purpose:

To provide a Tri-Service interactive forum where individuals involved in Facilities Management can inform each other of processes and changes in the professional environment, improve current operations by defining and refining all aspects of our facility life cycle management functions, and play a determining role in the future by establishing a truly collaborative Tri-service work environment.

Course Content Stability: **Low to Moderate**

While some items are static, the information changes concerning new processes and methods. Reported rates of change varied from 10% to 85% depending on which of seven tracks a student was assigned.

General Presentation Style: **Interactive/Collaborative**

The course was primarily small group discussion and problem solving exercises. Approximately 25% of information was delivered to the group in a lecture format.

Instructional Aids:

The majority of the speakers used Power Point slides or a 35mm slide projector to support their presentations. Flip Charts were used throughout to present small group findings to the larger audience.

Hands-on Activities:

None

Degree of Instructional Interaction:

The format of this course emphasized student interaction, so that participants provided the majority of the instruction and reinforcement to each other.

Relevant Instructional Value: **High**

This course provided a unique environment for instruction. Student interaction took place in a highly structured format, with each student participating in a particular curriculum based on personal requests.

Recommendation:

Partial Conversion: Convert Newcomers' Orientation to Web Based Training

The heavy emphasis on student interaction and problem solving exercises in this course makes it, as a whole, a poor candidate for a distance learning medium. However one portion of the course seems appropriate for Web Based Training. The Newcomers' Orientation is a distinct and separate section designed to provide an overview of each phase of the health facilities life cycle process. It is divided into several blocks of instruction that focus on each phase of the process. Its' primary purpose is to provide an understanding of the overall process. Students are pre-selected to attend the Newcomers' Orientation. Each is a newcomer to the Health Facility Planning Process, or a person who may have some experience but has not attended the course. By placing this course on the Web new personnel assigned to Health Facility Planning, regardless of service, will be able to take the course immediately, rather than having to wait for the next conference. While the cost of the course is relatively high, the benefits to the service may outweigh the cost of conversion.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track	**Course Number:** A0421

1. Instructional goals of the course: To provide participants with an overview of each phase of the medical facility life cycle process.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 20	7. Convert to DL?	X	
4. Number of hours to be converted	# 20	8. Enhance?		X
5. Number of registered students	# 30			
6. Number of potential students that could benefit from the course	# 50			

9. If item 8 = Yes, Specify

Technology	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 65,100	
11. Total Cost Year Two	$ 32,550	
12. Total Cost Year Three	$ 32,550	
13. Total Cost Year Four	$ 32.550	
14. Total Cost Year Five	$ 32,550	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 195,300***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 39,060	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	# 250	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	$ 782	

Additional Hardware/Software Required

Item:	Cost per unit	Total Cost

Proposed Enhancement(s)	Cost
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: Health Facility Life Cycle Acquisition Newcomers' Orientation Track	**Course Number:** A0421

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
70%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
2.5%	*Group Discussion*	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
5%	*Demonstration*	Students observe the application of knowledge. In this case, students are not participating themselves.	?
10%	***Student Verbal Presentations***	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
12.5%	**Shop Activity**	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Note: Demonstration and Shop Activities are paper or computer based and can be simulated or performed through Web Based Training

Course Information Summary Sheet

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track			
Course Number: A0421			
Length of course - number of hours of instruction: 20			
Number of Registered Students: 30			
Number of potential students that could benefit from this course: 50			
Instructional goals of the course: To provide participants with an overview of each phase of the medical facility life cycle process.			
Frequency of Course Offering: Once a year			
Continuing Education Credit Offered? No		**Number:** N/A	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	X
Self study		Structured Review	
Demonstration	X	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises	X		
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			

4. Course Technology Match Table

Course (Name) Health Facility Life Cycle Acquisition Newcomers' Orientation Track		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration	X					
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises	X					
Learning to Mastery						
Practice / drill	X					
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	X					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track	**Course Number:** A0421			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration		X	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		X	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation		>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		X	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track	**Course Number:** A0421			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration		X	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		X	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track **Media:** Web Based Training **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours ___200___					
3	Average hrs. per phase. Multiply line 1 by line 2	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	*24*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*93*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track **Media:** Computer Based Training **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours____200__					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	*24*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*93*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track	**Course Number:** A0421	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 4650
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 20
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 14
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 65,100
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 65,100
14	Number of potential students	# 50
15	Average Cost Per Student Divide line 13 by line 14	$ 1,302

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track	**Course Number:** A0421	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 4650
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 20
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 14
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 65,100
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 65,100
14	Number of potential students	# 50
15	Average Cost Per Student Divide line 13 by line 14	$ 1,302

Separate worksheets are needed for each technology.
Follow the instructions given on the worksheet.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track	**Course Number:** A0421

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		**X**			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	1302	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	651	
3. Labor hours year 3	651	
4. Labor hours year 4	651	
5. Labor hours year 5	651	
6. Subtotal	3906	
7. Average labor cost	$ 50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$ 195,300	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ -0-	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ -0-	
11. Cost year 3	$ -0-	
12. Cost year 4	$ -0-	
13. Cost year 5	$ -0-	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ -0-	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 195,300	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 39,060	
17. Potential students year 1	50	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	250	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 782	Round up to the nearest whole dollar

AMEDD Worldwide Personnel Management Course
Conversion Analysis

1998 AMEDD Worldwide Personnel Mgmt. Course

Course Purpose:

To provide current information regarding personnel policies and instruction in fundamental personnel management technical skills, as well as to accentuate peacetime responsibilities of the unit human resource manager.

Course Content Stability: **Low**

Course content constantly changes to reflect automation and innovation changes in the work environment.

General Presentation Style: **Lecture**

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. There were two panel discussions and three seminars as part of the breakout sessions.

Instructional Aids:

Overheads and PowerPoint slides.

Hands-on Activities:

None

Degree of Instructional Interaction:

Question/Answer periods accompanied the lectures and panel discussion. Informational exchanges took place during the seminar.

Relevant Instructional Value: **Moderate**

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be accomplished without doing some follow-up work.

Recommendation:

Convert to Web Based Training

This course is an informational exchange that could effectively be delivered by any distance learning format that supported "one-to-many" communications and allowed for visual aides. The most cost effective mode, and the one recommended is Level 1 Web Based Training. This requires eliminating the panel discussions and the three seminars from conversion. These sessions, which made up less than 9% of the sessions, were neither mandatory nor attended by all participants.

While the students had the opportunity to ask questions after most presentations, the questions, overall, focused on clarification. This type of interaction can be easily handled through Web, or Computer Based Training.

Given the large numbers of presenters and the number of contact hours involved (54), VTT proved to be significantly less cost effective ($518 per student) as compared to Web Based Training (($298 per student).

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: AMEDD Worldwide Personnel Mgmt. Course	**Course Number:** A0423

1. Instructional goals of the course: Provide current information regarding personnel policies and Instruction in fundamental personnel management technical skills, as well as accentuate the peacetime responsibilities of the unit Human Resource Managers.

			Yes	No
2. Frequency of course offering per year:	biannual			
3. Current length of course in hours	# 62	7. Convert to DL?	X	
4. Number of hours to be converted	# 54	8. Enhance?		X
5. Number of registered students	# 300			
6. Number of potential students that could benefit from the course	# 300			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT	X				
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 89,300	
11. Total Cost Year Two	$ 89,300	
12. Total Cost Year Three	$ 89,300	
13. Total Cost Year Four	$ 89,300	
!4. Total Cost Year Five	$ 89,300	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 446,500***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 89,300	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	# 1,500	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	$ 298	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: AMEDD Worldwide Personnel Mgmt. Course			Course Number: A0423
% of Course Using this Instructional Format	**Format**	**Description**	**Physical Presence Required?**
92%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
4%	*Panel Discussion*	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
5%	***Small Group Discussion***	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Note: The following instructional approaches will not be used for determining the Distance Learning Technology, Level of Interactivity, or Cost.

- Panel Discussions - made up less than 4% of the course and were not mandatory.
- Seminars (small group discussions) - made up less than 5% of the course and were not mandatory.

Course Information Summary Sheet

Course Name: AMEDD Worldwide Personnel Mgmt. Course			
Course Number: A0423			
Length of course - number of hours of instruction: 62			
Number of Registered Students: 300			
Number of potential students that could benefit from this course: 300			
Instructional goals of the course: Provide current information regarding personnel policies and Instruction in fundamental personnel management technical skills, as well as accentuate the peacetime responsibilities of the unit Human Resource Managers.			
Frequency of Course Offering: Biannual			
Continuing Education Credit Offered? No		**Number:** N/A	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

4. Course Technology Match Table

Course (Name) AMEDD Worldwide Personnel Mgmt. Course		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: AMEDD Worldwide Personnel Mgmt. Course	**Course Number:** A0423			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: AMEDD Worldwide Personnel Mgmt. Course	**Course Number:** A0423			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
		>>>>>>>>	>>>>>>>>	>>>>>>>>

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: AMEDD Worldwide Personnel Mgmt. Course	**Course Number:** A0423	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	X	>>>>>>>>
Graphics		
2D graphics still	X	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction **Course Name:** AMEDD Worldwide Personnel Mgmt. Course **Media:** Web Based Training **Level:** 1						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___100___					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction **Course Name:** AMEDD Worldwide Personnel Mgmt. Course **Media:** Computer Based Training **Level:** 1						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___100___					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: AMEDD Worldwide Personnel Mgmt. Course	Course Number: A0423	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 54
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 38
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 89,300
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 89,300
14	Number of potential students	# 300
15	Average Cost Per Student Divide line 13 by line 14	$ 298

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: AMEDD Worldwide Personnel Mgmt. Course	**Course Number:** A0423	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 54
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 38
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 89,300
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 89,300
14	Number of potential students	# 300
15	Average Cost Per Student. Divide line 13 by line 14	$ 298

Cost Estimate for a Single Course Over a Five Year Period

Course Name: AMEDD Worldwide Personnel Mgmt. Course	**Course Number:** A0423

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT	**X**				
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	1786	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	1786	
3. Labor hours year 3	1786	
4. Labor hours year 4	1786	
5. Labor hours year 5	1786	
6. Subtotal	8930	
7. Average labor cost	$50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$ 446,500	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ -0-	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ -0-	
11. Cost year 3	$ -0-	
12. Cost year 4	$ -0-	
13. Cost year 5	$ -0-	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ -0-	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 446,500	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 89,300	
17. Potential students year 1	300	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	1500	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 298	Round up to the nearest whole dollar

Army Medical Evacuation Conference
Conversion Analysis

ARMY MEDICAL EVACUATION COURSE

Course Purpose:
To use the Doctrine, Training, Organization, Leadership, Material format to facilitate an exchange of ideas and help improve the US Army Evacuation System across the operational spectrum.
Course Content Stability: **Moderate**
The is a central core of stable information, which is adjusted based on current trends in the AMEDD. In addition, the agenda is adapted based on courses critiques from previous years.
General Presentation Style: **Interactive/Collaborative**
The course was structured with three or four lecture sessions each morning which all participants attended as a group, and a "round robin" format in the afternoon with one-hour small group sessions each repeated four times. All individuals attended one iteration of each of the small "working groups". The purpose of this format was to encourage involvement of participants in discussion and problem solving. For many of these sessions, a knowledgeable senior officer was "seeded" in each group to facilitate discussion and, when needed, provide a historical/doctrinal perspective regarding the issue at hand.
Instructional Aids:
The majority (95%) of course instructors used overhead slides or a PowerPoint presentation to assist them. Approximately 50% used handouts to supplement their presentations. There was limited use of video.
Hands-on Activities:
None
Degree of Instructional Interaction:
There was a high degree of active participation in the majority of the general sessions with comments, questions, and suggestions regarding the question at hand. The round robin working groups encouraged involvement of participants in discussion and problem-solving.
Relevant Instructional Value: **High**
The topics presented addressed the most current issues in the evacuation field, to include recent doctrinal changes, aircraft modernization, battlefield communications, organizational structure and employment, and a review of final drafts of two revised field manuals.
Recommendation:
Prepare pre-course instruction for Distance Learning.
Due to the amount of interaction, and small group discussions during this course, it is not recommended that the entire course be converted to distance learning. Only VTT would be near appropriate. But given the highly interactive nature of the course it would have to be offered six times for the current number of students, with special preparation for each breakout session. However, pre-course materials focusing on the topics to be discussed in the "round robin" sessions (excluding rank specific workshops) would better prepare the students to make valuable contributions, and further facilitate the success of these activities at a very minimal per student cost ($1.80).

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Medical Evacuation Conference	**Course Number:** A0437

1. Instructional goals of the course : To use the Doctrine, Training, Organization, Leadership, Material format to facilitate an exchange of ideas and help improve the US Army Evacuation System across the operational spectrum.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 35	7. Convert to DL?		X
4. Number of hours to be converted	# 0	8. Enhance?	X	
5. Number of registered students	# 125			
6. Number of potential students that could benefit from the course	# 250			

9. If item 8 = Yes, Specify: Electronic Journal for pre-course instruction/preparation

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short __ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 450	
11. Total Cost Year Two	$ 450	
12. Total Cost Year Three	$ 450	
13. Total Cost Year Four	$ 450	
! 4. Total Cost Year Five	$ 450	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 2,250***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 450	
17. Total potential students over a five-year period. (multiply the number of potential students (item 6 above) by 5.)	# 1250	
18. Average cost per potential student over 5-year period. (divide the value in line 15 by the value in line 17)	$ 1.80	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
Electronic Journal for pre-course instruction/preparation	$ 2,250 over five years
	$
	$
Total Enhancement Costs	$ 2,250 over five years

Course Information Summary Sheet

Course Name: Army Medical Evacuation Conference	
Course Number: A0437	
Length of course - number of hours of instruction: 35	
Number of Registered Students: 125	
Number of potential students that could benefit from this course: 250	
Instructional goals of the course: To use the Doctrine, Training, Organization, Leadership, Material format to facilitate an exchange of ideas and help improve the US Army Evacuation System across the operational spectrum.	
Frequency of Course Offering: Once a year	
Continuing Education Credit Offered? Yes	**Number:**

For each item listed, check ✓ row marked "Check" if observed or documented.

Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion	X	Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X
Communications			
Audio		Open Discussion	X
Indirect discourse		Question and answer	X
Assigned reading			

Course Technology Match Table

Course Army Medical Evacuation Conference		**Technologies**				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion	X					
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	X					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion	X					
Question and answer opportunities	X					

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Medical Evacuation Conference	**Course Number:** A0437

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Do Not Convert**
WBT					**X**
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	0	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	0	
3. Labor hours year 3	0	
4. Labor hours year 4	0	
5. Labor hours year 5	0	
6. Subtotal		
7. Average labor cost	$50	
8. Total labor Cost over 5-yr. period. Multiply line 6 by line 7	$ 0	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 450	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 450	
11. Cost year 3	$ 450	
12. Cost year 4	$ 450	
13. Cost year 5	$ 450	
14. Total Additional Costs. Sum lines 9 to 13 and enter on line 14	$ 2,250	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 2,250	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 450	
17. Potential students year 1	250	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	1250	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 1.80	

U.S. Army Health Care Logistics Conference
Conversion Analysis

US ARMY HEALTH CARE LOGISTICS

Course Purpose:

The training of medical logistics professionals to enhance medical readiness overall and the efficient support provisions of medical logistics to the Army health care system. To train Army medical logisticians to be successful in a highly complex and sophisticated environment which spans the medical support of a Force Projection Army to the unique mix of military and private sector logistics practices necessary to support today's Military Health System. To provide a forum for junior officers to gain considerable insight into the numerous professional opportunities afforded them in the medical logistics field.

Course Content Stability: **Moderate**

Approximately 60% of the course content changes yearly.

General Presentation Style: **Distributive**

The information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners.

Instructional Aids:

Presentations were supported by slides, overheads, Power Point presentations, and some video.

Hands-on Activities:

None

Degree of Instructional Interaction:

Question and answer periods followed each of the lectures. These were informational exchanges. In addition, there was a high level of informational exchange during the poster session. These exchanges had high instructional value in that they were directly tied to the course goal of improving research skills.

Relevant Instructional Value: **High**

The majority of presentations were focused directly on the needs of health care logisticians or provided needed general background.

Recommendation:

Convert to Web-Based Training.

The US Army Health care Logistics Conference was a large conference with 450+ registered attendees and 55 presenters. The majority of breakout sessions were offered twice to allow participants to attend each presentation without conflicting with other presentations. Excluding strictly conference related activities the course contained 50 hours of instruction, 13 hours in the plenary sessions and 33 hours in breakout sessions. Because of the large number of presenters, VTT would prove expensive as well as extremely difficult to organize and manage. Web Based Training is an ideal conversion medium for this course. The use of WBT or CBT would require significant effort to reorganize the content into logical blocks. While the number of potential participants is very near actual participants (500 to 450), potential cost savings and increased flexibility would make this conversion attractive.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: US Army Health Care Logistics	**Course Number:** A0438

1. Instructional goals of the course : The training of medical logistics professionals to enhance medical readiness overall and the efficient support provisions of medical logistics to the Army health care system. To train Army medical logisticians to be successful in a highly complex and sophisticated environment which spans the medical support of a Force Projection Army to the unique mix of military and private sector logistics practices necessary to support today's Military Health System. To provide a forum for junior officers to gain considerable insight into the numerous professional opportunities afforded them in the medical logistics field.

			Yes	**No**
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 50	7. Convert to DL?	X	
4. Number of hours to be converted	# 50	8. Enhance?		X
5. Number of registered students	# 450			
6. Number of potential students that could benefit from the course	# 500			

9. If item 8 = Yes, Specify:

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 162,750	
11. Total Cost Year Two	$ 97,650	
12. Total Cost Year Three	$ 97,650	
13. Total Cost Year Four	$ 97,650	
! 4. Total Cost Year Five	$ 97,650	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 553,350***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 110,670	
17. Total potential students over a five-year period. (multiply the number of potential students (item 6 above) by 5.)	# 2500	
18. Average cost per potential student over 5-year period. (divide the value in line 15 by the value in line 17)	$ 222	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: US Army Health Care Logistics	**Course Number:** A0438

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
91%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
3%	*Panel Discussion*	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
6%	*Group Discussion*	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Panel Discussions and Group discussions Comprised less than 9% of the conference and were also conducted as breakout sessions, and therefore not required for all students. Because these sessions were not required of all students they will not be considered critical factors for the remainder of the conversion analysis.

Course Information Summary Sheet

Course Name: US Army Health Care Logistics

Course Number: A0438

Length of course - number of hours of instruction:

Number of Registered Students: 450

Number of potential students that could benefit from this course: 500

Instructional goals of the course: The training of medical logistics professionals to enhance medical readiness overall and the efficient support provisions of medical logistics to the Army health care system. To train Army medical logisticians to be successful in a highly complex and sophisticated environment which spans the medical support of a Force Projection Army to the unique mix of military and private sector logistics practices necessary to support today's Military Health System. To provide a forum for junior officers to gain considerable insight into the numerous professional opportunities afforded them in the medical logistics field.

Frequency of Course Offering: Once a Year

Continuing Education Credit Offered? None | **Number:** N/A

For each item listed, check ✓ row marked "Check" if observed or documented.

Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Course Technology Match Table

Course (Name) US Army Health Care Logistics		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	X					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: US Army Health Care Logistics	**Course Number:** A0438			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		X	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: US Army Health Care Logistics	**Course Number:** A0438			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		X	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: US Army Health Care Logistics	**Course Number:** A0438	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	X	>>>>>>>>
Graphics		
2D graphics still	X	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films	X	>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction **Course Name:** US Army Health Care Logistics **Media:** WEB Based Training **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___200___					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	*24*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*93*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction **Course Name:** US Army Health Care Logistics **Media:** Computer Based Training **Level:** 2						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours_____					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	*24*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*93*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: US Army Health Care Logistics		**Course Number:** A0438
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 4650
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 50
5	Compression: If conversions to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 35
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 162,750
Do not use lines 7 to 12 for any costs that are to be shared		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 162,750
14	Number of potential students	# 500
15	Average Cost Per Student Divide line 13 by line 14	$ 326

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: US Army Health Care Logistics	**Course Number:** A0438	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 4650
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 50
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 35
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 162,750
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 162,750
14	Number of potential students	# 500
15	Average Cost Per Student Divide line 13 by line 14	$ 326

Cost Estimate for a Single Course Over a Five Year Period

Course Name: US Army Health Care Logistics			**Course Number:** A0438		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	3255	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	1953	
3. Labor hours year 3	1953	
4. Labor hours year 4	1953	
5. Labor hours year 5	1953	
6. Subtotal	11,067	
7. Average labor cost	$50	
8. Total labor Cost over 5-yr. period. Multiply line 6 by line 7	$ 553,350	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 0	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 0	
11. Cost year 3	$ 0	
12. Cost year 4	$ 0	
13. Cost year 5	$ 0	
14. Total Additional Costs. Sum lines 9 to 13 and enter on line 14	$ 0	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 553,350	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 110,670	
17. Potential students year 1	500	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	2500	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 222	Round up to the nearest whole dollar

NOTE: 40% of the course content does not change from year to year. Estimated labor hours for years 2 to 5 are adjusted for this factor.

Phyllis J. Verhonick Research Course
Conversion Analysis

PHYLLIS J. VERHONICK RESEARCH COURSE

Course Purpose:

- To provide Army Nurse Corps Officers, other military officers, and civilian nurses engaged in multidisciplinary and/or collaborative research with a course of instruction to nurture the generation, dissemination, and use of research to continuously improve clinical practice.
- To provide a vehicle for those with intermediate or advanced research skills to exchange information on research theory, methodology, and funding, as well as to present study findings.

Course Content Stability: **Low**

Invited speakers address topics relevant to general research topics (ethics, outcomes issues, etc.), while completed research abstracts change to reflect the latest research.

General Presentation Style: **Distributive**

The information was delivered using a lecture format as the primary vehicle in which one instructor presenters information to many learners. There was a poster session as well in which presented stood by exhibits of their research, and were available to answer questions to those who attended.

Instructional Aids:

Presenters were supported by PowerPoint slides that were projected either from a 35mm slide projector, or directly from a computer. One speaker used a brief videotape to support the lecture.

Hands-on Activities:

None

Degree of Instructional Interaction:

Question and answer periods followed each of the lectures. These were informational exchanges. In addition, there was a high level of informational exchange during the poster session. These exchanges had high instructional value in that they were directly tied to the course goal of improving research skills.

Relevant Instructional Value: **High**

The course content was clearly focused, and presented the students with serious issues relevant to research at a general level, as well as several examples of on-going and recently completed research. The instructional approach allowed the research results to be viewed not only in terms of their intrinsic value to the nursing profession, but also within the parameters of the *mechanics* of research.

Recommendation:

Convert to Web-Based Training.

The instructional value of this course, although presently high, would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Web based training was identified as the most cost effective means given the number of presenters and potential students, supplemented by an electronic bulletin board for the benefit of student presenters.

While a Web based training program would be of benefit to the 3400 potential participants, the student presenters, who would become submitters in a Web based training environment, would receive little benefit. To assure that the student submitters receive the type of feedback that would benefit their research, a Web Based "bulletin board" can be established for student presenters through one of the numerous web sites maintained by the Army.

A drawback to an electronic bulletin board is that it can be very time consuming to those having to answer numerous questions, over an extended period of time. Since Web based training will allow participants to sign-in at any time, a bulletin board used as an integral part of the course, would require that submitters, whether or not students, answer questions in a timely manner throughout the life of the course. This would be a significant added responsibility that many individuals, military or civilian, may not be willing or able to assume.

Given the potential number of users, and that student presenters have other responsibilities, student presenters should be free to determine their own level of participation on the bulletin board. Participation in the bulletin board should be voluntary and not considered a required portion of the course.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513

1. Instructional goals of the course : To provide Army Nurse Corps Officers, other military officers, and civilian nurses engaged in multidisciplinary and/or collaborative research with a course of instruction to nurture the generation, dissemination, and use of research to continuously improve clinical practice. To provide a vehicle for those with intermediate or advanced research skills to exchange information on research theory, methodology, and funding, as well as to present study findings.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 26	7. Convert to DL?	X	
4. Number of hours to be converted	# 26	8. Enhance?	X	
5. Number of registered students	# 100			
6. Number of potential students that could benefit from the course	# 3400			

9. If item 8 = Yes, Specify: Establish electronic bulletin board

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT	X				
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 42,770	
11. Total Cost Year Two	$ 42,770	
12. Total Cost Year Three	$ 42,770	
13. Total Cost Year Four	$ 42,770	
! 4. Total Cost Year Five	$ 42,770	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 213,850***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 42,770	
17. Total potential students over a five-year period. (multiply the number of potential students (item 6 above) by 5.)	# 17,000	
18. Average cost per potential student over 5-year period. (divide the value in line 15 by the value in line 17)	$ 12.58	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
88%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
7%	*Poster Session*	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
5%	*Group Discussion*	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Phyllis J. Verhonick Research Course

Course Number: A0513

Length of course - number of hours of instruction: 26

Number of Registered Students: 100

Number of potential students that could benefit from this course: 3400

Instructional goals of the course: To provide Army Nurse Corps Officers, other military officers, and civilian nurses engaged in multidisciplinary and/or collaborative research with a course of instruction to nurture the generation, dissemination, and use of research to continuously improve clinical practice.

To provide a vehicle for those with intermediate or advanced research skills to exchange information on research theory, methodology, and funding, as well as to present study findings.

Frequency of Course Offering: Biannually

Continuing Education Credit Offered? Yes | **Number:** 29.4

For each item listed, check ✓ row marked "Check" if observed or documented.

Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit	X	Remediation	
Guided Discussion	X	Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Note: In order to provide student submitters with a level of interactivity comparable to the poster session and feedback possible after verbal presentations, an electronic bulletin board is proposed. Therefore factors related to group discussion (open discussion) or poster sessions (question and answer) will not be considered as limiting factors in the selection of a technology.
Video uses for portion of one presentation (>5%), not considered in the selection of a technology.

Course Technology Match Table

Course Phyllis J. Verhonick Research Course		**Technologies**				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit	X					
Guided Discussion	X					
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit		X	>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	X	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		X
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	X	>>>>>>>>
Graphics		
2D graphics still	X	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction **Course Name:** Phyllis J Verhonick Research Course **Media:** WEB Based Training **Level:** 1						
		Analysis	**Design**	**Development**	**Implementation**	**Sums**
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___100___					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: Phyllis J Verhonick Research Course
Media: Computer Based Training **Level:** 1

		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours_____					
3	Average hrs. per phase	*40*	*20*	*25*	*15*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	*12*	*10*	*20*	*4.5*	
	Total Labor Hours - sum across line 5					*47*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 26
5	Compression: If conversions to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 18.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 42770
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 42,770
14	Number of potential students	# 3,400
15	Average Cost Per Student Divide line 13 by line 14	$ 12.58

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training		
Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 2350
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 26
5	Compression: If conversion to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 18.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 42770
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 42,770
14	Number of potential students	# 3,400
15	Average Cost Per Student Divide line 13 by line 14	$ 12.58

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Phyllis J. Verhonick Research Course	**Course Number:** A0513

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT	**X**				
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	855.4	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	855.4	
3. Labor hours year 3	855.4	
4. Labor hours year 4	855.4	
5. Labor hours year 5	855.4	
6. Subtotal	4277	
7. Average labor cost	$ 50	
8. Total labor Cost over 5-yr. period. Multiply line 6 by line 7	$ 213,850	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 0	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 0	
11. Cost year 3	$ 0	
12. Cost year 4	$ 0	
13. Cost year 5	$ 0	
14. Total Additional Costs. Sum lines 9 to 13 and enter on line 14	$ 0	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 213,859	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 42,770	
17. Potential students year 1	3400	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	17,000	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$12.58	

Military Nursing Practice Course
Conversion Analysis

MILITARY NURSING PRACTICE COURSE

Purpose

The purpose of this course is to provide nurse clinicians and middle managers (active duty and civilian) with current concepts, trends, and issues affecting the delivery of care as the military health care system transitions into the new millennium. To provide students with powerful learning tools, knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices.

Course Content Stability: **Low**

Topics and subject matter vary with course theme. That is, trends and practices change and the content changes to reflect these modifications.

General Presentation Style: **Distributive**

The format of the course provided for dissemination of information in primarily a lecture format, with speakers offering experiential data regarding both management and clinical care topics appropriate to the level of intended audience.

Instructional Aids:

Speakers generally spoke from PowerPoint slides projected from an overhead, a 35mm slide projector, or a computer.

Hands-on Activities:

None

Degree of Instructional Interaction

There was discussion solicited during and after most presentations. The exchanges were primarily informational.

Relevant Instructional Value: **High**

The course content was clearly focused, and presented the students with serious issues relevant to the course objectives.

Recommendation

Convert to Web-Based Training.

The instructional value of this course, although presently high, would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. In this way, the forum that allows for the exchange of ideas would be available year-round. For example, a "bulletin board" on the Web would provide a vehicle where questions could be posted, and individuals could provide their insight after they have had some time to reflect, consult others, etc. Furthermore, younger officers would benefit from exposure to these "conversations" just from observing them develop over time. Since approximately 50% of the course can change on an annual basis, the best mode of delivery would be Web Based Training. An additional benefit from converting the course would make it possible for everyone to be exposed to all the information in the three breakout sessions (nine sessions instead of three).

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Military Nursing Practice Course	**Course Number:** A0515

1. Instructional goals of the course: To provide nurse clinicians and middle managers, active duty and civilians with current concepts, trends and issues affecting the delivery of care as the military health care system transitions into the new millennium. The course provides participants with knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices.

			Yes	**No**
2. Frequency of course offering per year	1			
3. Current length of course in hours	35	7. Convert to DL?	X	
4. Number of hours to be converted	35	8. Enhance?		X
5. Number of registered students	80			
6. Number of potential students that could benefit from the course	2,200			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X__ Long ___ Synchronous ___

Cost Data

10. Total Cost Year One				$112,550		
11. Total Cost Year Two				$56,250		
12. Total Cost Year Three				$56,250		
13. Total Cost Year Four				$56,250		
14. Total Cost Year Five				$56,250		
15. Total costs year 1 to 5 (Sum of lines 10 through 14)				$337,550		
16. Average cost, years 1 to 5 (Divide value in line 15 by 5)				$67,510		
17. Total potential students over a five year period. (multiply the number of potential students [item 6 above] by 5.)				11,000		
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)				$31		

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancements	**Cost**
Total Enhancement Costs	

Instructional Formats and Physical Training Requirements

Course Name: Military Nursing Practice Course	**Course Number:** A0515

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Military Nursing Practice Course			
Course Number: A0515			
Length of course - number of hours of instruction: 34.5			
Number of Registered Students: 80			
Number of potential students that could benefit from this course: 2,200			
Instructional goals of the course: To provide nurse clinicians and middle managers, active duty and civilians with current concepts, trends and issues affecting the delivery of care as the military health care system transitions into the new millennium. The course provides participants with knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices.			
Frequency of Course Offering: Annual			
Continuing Education Credit Offered? Yes		**Number:** 34.2	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			

Course Technology Match Table

Course Military Nursing Practice Course		Technologies				
Administrative Requirements	**Check**	**CBT**	**WEB**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	✓					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Military Nursing Practice Course	**Course Number:** A0515			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: Military Nursing Practice Course	**Course Number:** A0515			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: Military Nursing Practice Course						
		Media: Web Based			Level: 2	
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: Military Nursing Practice Course						
		Media: CBT Multimedia			Level: 2	
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Web Based Training			
Course Name: Military Nursing Practice Course		Course Number: A0515	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	35
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	24.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	112,297.50
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	112,297.50
14	Number of potential students.	#	2,200
15	Average Cost Per Student Divide line 13 by line 14	$	51.04

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: CBT Multimedia			
Course Name: Military Nursing Practice Course		Course Number: A0515	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	35
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	24.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	112,297.50
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	112,297.50
14	Number of potential students.	#	2,200
15	Average Cost Per Student Divide line 13 by line 14	$	51.04

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Military Nursing Practice Course			**Course Number**: A0515		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**		**Source**
1. Labor Hours Year 1	2251		*Course Technology Match Table, Technology Interactivity Factors Table* Labor hours reduced because 50% of the course is stable.
2. Labor Hours Year 2	1125		
3. Labor Hours Year 3	1125		
4. Labor Hours Year 4	1125		
5. Labor Hours Year 5	1125		
6. Subtotal	6752		
7. Average Labor Cost per hour	$50		
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$337,590		
Additional Development Costs By Year			
9. Cost year 1	$0		*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$0		
11. Cost year 3	$0		
12. Cost year 4	$0		
13. Cost year 5	$0		
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$0		
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$337,590		
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$67,518		
17. Potential students year 1.	2200		*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	11000		
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	$31		*Round up to the nearest whole dollar.*

Army Nurse Corps
Company Grade Leadership Course
Conversion Analysis

ARMY NURSE CORPS COMPANY GRADE LEADERSHIP COURSE

Course Purpose

This course provides participants an interactive forum in which to develop their own personal framework for the AMEDD vision that supports leadership development. The stated purpose of the course is to prepare company grade nurse leaders to participate in the evolution of the military health care system.

Course Content Stability: Low

The content of this course changes from year to year to reflect the changing needs of the Army and the leadership issues relevant to the Army Nurse Corps.

General Presentation Style: Distributive/Collaborative

This course consisted of several lecture-style presentations, on-site visits to the Pentagon and Fort Detrick, and a small discussion group activity spread out over a 3-day period. During the discussion group periods, participants used the information that was presented to them during lectures to prepare a brief for Brigadier General Simmons on issues of concern and their possible solutions. The briefing took place on the final day of the course. It should be noted that this small discussion group/briefing activity was not included in the list of objectives for the course, nor was the time accounted for in the course schedule. However, because this seemed such an integral part of this course, it was included in our analysis. Finally, there were several scheduled 'networking events' in the form of working lunches and a dinner during which senior level nurses from various positions and branches of the military were available to answer questions and to offer career guidance.

Instructional Aids:

35mm and PowerPoint slides were used during lectures providing both visual aides and outlined information. A video was used to supplement one lecture. In addition, each of the instructors provided handouts with supplemental information relevant to the topic they were addressing.

Hands-on Activities:

None

Degree of Instructional Interaction

During lecture presentations, students asked questions looking for elaboration of the information presented. These questions tended to feed off of one another, at times opening up into a discussion among the students guided by the lecturer. During field trips, the students met with individuals who held several unique positions within the ANC, and were able to see first hand some of the labs and wards where their work was done. They were able to try some of the latest technological developments that are ready for testing in the field, and make contacts with the developers. The briefing exercise, in which groups of students prepared to brief the General about issues of their choosing, required a high degree of interactivity both among students as well as with the General.

Relevant Instructional Value: High

This course provides a significant amount of information that is relevant to the professional performance of the attendees.

Recommendation

Do not convert to distance learning

Video Teletraining (VTT) was considered as a medium for this course. Although the cost of converting to VTT would represent substantial savings over the current method, it does not appear that the course objectives (formal and informal) could be accomplished by VTT. Specifically, the benefits gained from the small group interaction leading to the final briefing and the field trips involving interaction with senior nursing leaders could not be accomplished by distance learning. This course is a dynamic and highly interactive course whose goal of better preparing tomorrow's leaders is best delivered in real-time. The activities allow the students to go far beyond the basic learning of facts. They learn about career opportunities which must be acted upon today in order to experience them 10 years from now and be better prepared for the leadership roles in which many of them are already filling.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Nurse Corps Company Grade Leadership Course	**Course Number:** A0524

1. Instructional goals of the course: To provide participants an interactive forum in which to develop their own personal framework for the AMEDD vision that supports leadership development.

			Yes	No
2. Frequency of course offering per year	1			
3. Current length of course in hours	32	7. Convert to DL?		X
4. Number of hours to be converted	0	8. Enhance?		X
5. Number of registered students	47			
6. Number of potential students that could benefit from the course	40			

9. If item 8 = Yes, Specify

Technology	Level 1	Level 2	Level 3	Level 4	
WBT					
CBT					
VTT	Low		High X		VTT Considered
Other					

Labor Hours Estimation Method: Short ___ Long ___ Synchronous _X__

Cost Data

10. Total Cost Year One	$23,980	
11. Total Cost Year Two	$15,980	
12. Total Cost Year Three	$15,980	
13. Total Cost Year Four	$15,980	
14. Total Cost Year Five	$15,980	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	$87,900	
16. Average cost, years 1 to 5 (Divide value in line 15 by 5)	$17,580	
17. Total potential students over a five year period. (multiply the number of potential students [item 6 above] by 5.)	200	
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)	$440	

Additional Hardware/Software Required

Item:	Cost per unit	Total Cost

Proposed Enhancements	Cost
Total Enhancement Costs	

Instructional Formats and Physical Training Requirements

Course Name: Army Nurse Corps Company Grade Leadership Course	**Course Number:** A0524

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
55.54%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
3.12%	*Panel Discussion*	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
15.6%	***Small Group Discussion***	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
10.92%	***Student Verbal Presentations***	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
14.82%	*Field Trip*	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Army Nurse Corps Company Grade Leadership Course			
Course Number: A0524			
Length of course - number of hours of instruction: 27.4 (32.05 actual)			
Number of Registered Students: 47			
Number of potential students that could benefit from this course: 40			
Instructional goals of the course: To prepare company grade nurse leaders to participate in the evolution of the military health care system			
Frequency of Course Offering: Annual			
Continuing Education Credit Offered? Yes		**Number:** 25	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	✓
Simulation (roll play, in-basket)			
Problem solving exercises	✓		
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	✓
Communications			
Audio		Open Discussion	✓
Indirect discourse		Question and answer opportunities	✓
Assigned reading			

Course Technology Match Table

Course Army Nurse Corps Company Grade Leadership Course		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises	✓					
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks	✓					
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	✓					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	✓					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion	✓					
Question and answer opportunities	✓					

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Army Nurse Corps Company Grade Leadership Course	**Course Number:** A0524	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	✓	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		✓
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		✓
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	✓	>>>>>>>>
Graphics		
2D graphics still	✓	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films	✓	>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		✓
Question and answer opportunities		✓

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Calculation of Synchronous Training Costs

Course Name: Army Nurse Corps Company Grade Leadership Course	**Course Number:** A0524
Labor Costs	
Development Cost = (320 hrs.) x average hourly rate ($50)	$ 16,000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate ($50)	$ 3,700
Non-local Labor Cost = Number of non-local presenters x (length of the course in days +1) x number of times offered x average daily rate ($400)	$ 0
Moderator ($400 per 8 hour day the course is taught)	$ 0
Local Labor Cost = Number of local presenters x average hourly rate ($50) X 2 X number of times course is offered.	$ 3,800
Total Labor Costs per session	$ 23,500
Additional Cost (any costs not captured above)	
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	0
Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.	0
Total dollar amount paid as honorariums.	$ 480
(Other)	
Total Estimated Cost: Add Total Per Diem, Air Fare, Labor Costs, and Additional Costs.	
Total Labor Costs	$ 23,500
Total Per Diem	$ 0
Total Airfare	$ 0
Total paid as honorariums	$ 480
TOTAL COURSE COST Year 1	$ 23,980
Potential Students	40
Cost Per Student = Total course costs divided by potential number of students.	$ 600

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Nurse Corps Company Grade Leadership Course	**Course Number**: A0524

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High **X**		
Other					

Cost Factors	**Values**	**Source**
1. Labor Hours Year 1	470	*Course Technology Match Table, Technology Interactivity Factors Table*
2. Labor Hours Year 2	310	
3. Labor Hours Year 3	310	
4. Labor Hours Year 4	310	
5. Labor Hours Year 5	310	
6. Subtotal	1710	
7. Average Labor Cost per hour	$50	
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$85,500	
Additional Development Costs By Year		
9. Cost year 1	$480	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$480	
11. Cost year 3	$480	
12. Cost year 4	$480	
13. Cost year 5	$480	
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$2,400	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$87,900	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$17,580	
17. Potential students year 1.	40	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	200	
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	$440	*Round up to the nearest whole dollar.*

ARMY MEDICAL SPECIALIST CORPS
EXECUTIVE MANAGEMENT COURSE
Conversion Analysis

AMSC Medical Specialist Corps Executive Management Course

Course Purpose:

The purpose of the course was to provide knowledge and tools to allow AMSC Senior Leaders to incorporate the Surgeon General's goals (insuring readiness, designing organization, managing care, valuing people, and leveraging technology) in strategically positioning the Corps for mission accomplishment in the 21st Century.

Course Content Stability: **Low**

The course is presented alternate years with a content selected to meet current course focus/objectives and needs. As such, it is almost entirely dynamic and subject to change.

General Presentation Style: **Distributive**

This course was delivered using lecture, seminar, or a combination of these formats. The majority of the sessions, while falling within the definition of a lecture (one instructor to many learners), were structured to encourage and facilitate a highly interactive discussion and question and answer environment. The information provided in the educational sessions was used to foster skills that were subsequently implemented during the group activity sessions.

Instructional Aids:

A combination of overhead slides, computer-generated slides, videotapes, and handouts supported presentation of the course materials.

Hands-on Activities:

Heavily interactive group activities designed to use problem-solving, conflict-resolution, and other leadership skills presented during the course were conducted. These sessions, while not incorporating training with equipment or tools, could be considered to meet the definition of a "hands-on" experience facilitating practical experience using the skills taught in the course.

Degree of Instructional Interaction

A high level of interaction was demonstrated, both during the lecture sessions and the group activities. Questions and discussions during the sessions tended to incorporate real-world situational problems and issues and an exploration of the means by which the content of the specific presentation might be utilized to address the problem or issue.

Relevant Instructional Value: **High**

The course had well-written behavioral objectives that were adhered to during the course. All material was extremely appropriate to military leaders at the level in attendance.

Recommendation

Do not convert.

This course, through utilization of the AMSC node of the AMEDD Knowledge Management Network, is currently incorporating distance learning concepts by maximizing continued participation of students in the ongoing Corps strategic planning and problem-solving activities initiated during the course. It should also be noted that pre-course activities involving problem-identification by course participants was planned, but logistical problems within the Network prevented its implementation. In addition, VTC was utilized to allow participation of the Surgeon General of the Army directly from his office in the D.C. area to the course site. It is clear that the planners of this course are already aware of, and are appropriately incorporating, distance learning concepts in course execution. The only conversion media considered was VTC. However, the current cost per student ($840) is less than the cost to convert ($1,742). In addition, it is doubtful if all course objectives could be adequately met with any distance learning format.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Medical Specialist Corps Executive Management Course	**Course Number:** A 0624

1. Instructional goals of the course: The purpose of the course was to provide knowledge and tools to allow AMSC Senior Leaders to incorporate the Surgeon General's goals (insuring readiness, designing organization, managing care, valuing people, and leveraging technology) in strategically positioning the Corps for mission accomplishment in the 21st Century.

			Yes	**No**
2. Frequency of course offering per year	1[1]			
3. Current length of course in hours	36	7. Convert to DL?		X
4. Number of hours to be converted	0	8. Enhance?		X
5. Number of registered students	50			
6. Number of potential students that could benefit from the course	50			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WTB					
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short ___ Long ___ Synchronous _X__

Cost Data

10. Total Cost Year One				$132,366		
11. Total Cost Year Two				$75,766		
12. Total Cost Year Three				$75,766		
13. Total Cost Year Four				$75,766		
14. Total Cost Year Five				$75,766		
15. Total costs year 1 to 5 (Sum of lines 10 through 14)				$435,430		
16. Average cost, years 1 to 5 (Divide value in line 15 by 5)				$87,086		
17. Total potential students over a five year period. (multiply the number of potential students [item 6 above] by 5.)				250		
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)[2]				$1,742		

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancements	**Cost**
Total Enhancement Costs	

[1] The course is offered on a bi-annual basis.

[2] The current cost per student is $840

Instructional Formats and Physical Training Requirements

Course Name: Army Medical Specialist Corps Executive Management Course	**Course Number:** A 0624

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
50%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
50%	***Small Group Discussion***	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Army Medical Specialist Corps Executive Management Course			
Course Number: A 0624			
Length of course - number of hours of instruction: 36			
Number of Registered Students: 50			
Number of potential students that could benefit from this course: 50			
Instructional goals of the course: The purpose of the course was to provide knowledge and tools to allow AMSC Senior Leaders to incorporate the Surgeon General's goals (insuring readiness, designing organization, managing care, valuing people, and leveraging technology) in strategically positioning the Corps for mission accomplishment in the 21st Century.			
Frequency of Course Offering: Every other year			
Continuing Education Credit Offered? Yes		**Number:** 28	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	✓
Simulation (roll play, in-basket)			
Problem solving exercises	✓		
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	✓
Communications			
Audio		Open Discussion	✓
Indirect discourse		Question and answer	
Assigned reading			

Course Technology Match Table

Course: Army Medical Specialist Corps Executive Management Course		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises	✓					
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks	✓					
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation						
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	✓					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion	✓					
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side, then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: Army Medical Specialist Corps Executive Management Course	**Course Number:** A 0624	
Synchronous Course	**Video Teletraining**	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	✓	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>>>
Simulation - hardware		
Problem solving exercises		✓
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		✓
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation		>>>>>>>>
Graphics		
2D graphics still	✓	>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films	✓	>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		✓
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Data Required to Calculate Time and Cost of Synchronous Training

Course Name: Army Medical Specialist Corps Executive Management Course	Course Number: A 0624	
Data Required: Time and Cost of Synchronous Training - VTT		
Level of Interactivity:	Low	High **X**
Number of time the course is to be offered If interactivity is high then: divide the number of participants by 20 to determine the number of times the course should be offered. If interactivity is low then the number of times the course is offered = 1	#	3 sessions
Length of the course in days.	#	5 per session
Length of the course in contact hours to be converted.	#	36
Total Studio Time = Course length in hours	#	36
Total number of presenters.	#	13
Number of non-local presenters.	#	8
Total dollar amount paid as honorariums.	$	$6,720
Local daily per diem rate.	$	$127
Amount spent on presenter air fare (From Course administrators survey.)	$	$2,100
Salary, average daily rate, assume average 8 hour day (military and govt. civilian) = $ 400	$	$400
Average hourly rate = $50	$	$50
Current number of registered students.	#	50
Potential number of students .	#	50
Preparation and planning time (average = 320 hours.)	#	320

Calculation of Synchronous Training Costs

Course Name: Army Medical Specialist Corps Executive Management Course	**Course Number:** A 0624
Labor Costs	
Development Cost = (320 hrs.) x average hourly rate ($50)	$16,000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate ($50)	$6,150
Non-local Labor Cost = Number of non-local presenters x (length of the course in days +1) x number of times offered x average daily rate ($400)	$57,600
Moderator ($400 per 8 hour day the course is taught)	$1,800
Local Labor Cost = Number of local presenters x average hourly rate ($50) X 2 X number of times course is offered.	$1,500
Total Labor Costs per session	$83,050
Additional Cost (any costs not captured above)	
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	$6,096
Total Air Fare = (Average Round Trip Air Fare x number of non-local presenters) x number of times the course will be presented.	$6,300
Total dollar amount paid as honorariums.	$6,720
(Other)	
Total Estimated Cost: Add Total Per Diem, Air Fare, Labor Costs, and Additional Costs.	
Total Labor Costs	$83,050
Total Per Diem	$6,096
Total Air Fare	$6,300
Total paid as honorariums	$6,720
TOTAL COURSE COST Year 1	$102,166
Potential Students	50
Cost Per Student = Total course costs divided by potential number of students.	$2,043

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Medical Specialist Corps Executive Management Course			**Course Number**: A 0624		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High **X**		
Other					

Cost Factors	**Values**		**Source**
1. Labor Hours Year 1	2265		*Course Technology Match Table, Technology Interactivity Factors Table*
2. Labor Hours Year 2	1133		
3. Labor Hours Year 3	1133		
4. Labor Hours Year 4	1133		
5. Labor Hours Year 5	1133		
6. Subtotal	6795		
7. Average Labor Cost per hour	$50		
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$339,750		
Additional Development Costs By Year			
9. Cost year 1	$19,116		*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$19,116		
11. Cost year 3	$19,116		
12. Cost year 4	$19,116		
13. Cost year 5	$19,116		
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$95,580		
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$435,330		
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$87,066		
17. Potential students year 1.	50		*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	250		
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	$1,741		*Round up to the nearest whole dollar.*

AMSC Combat Casualties and Humanitarian Missions Course Conversion Analysis

SUPPORT OF COMBAT CASUALTY CARE AND HUMANITARIAN MISSION

Course Purpose:

To introduce participants to a wide variety of deployment missions and environments, and to assist them in planning for their participation in future deployments.

Course Content Stability: **Low**

This course focuses on presenting the latest relevant information. Each year, different speakers discuss their recent deployment experiences. In addition, experts discuss current operations and world threats.

General Presentation Style: **Distributive/Interactive**

The majority of this course was delivered using a lecture format with opportunity for questions and answers. For each of the primary attending groups (Dietitians and Physical Therapists), there was an activity in which direct involvement of the students was required.

Instructional Aids:

35mm slides were used by approximately 65% of the speakers. 50% relied on overhead/PowerPoint during their presentations. Special Equipment was used for demonstrations in about 5% of the activities.

Hands-on Activities:

Minor (constructing a Middle Upper Arm Circumference (MUAC) tape to assess malnutrition).

Degree of Instructional Interaction:

There was for the most part a high degree of dialogue between presenters and participants during the didactic portions. Participants not only asked questions of the speakers, but also offered their perspectives and experiences as related to a specific content area.

Relevant Instructional Value: **High**

The entire course was structured to introduce participants to a wide variety of deployment missions and environments and to assist them in planning for their participation in deployments in the future.

Recommendation:

Do not convert to a Distance Learning format.

While the basic content of each didactic session could be presented via distance learning, the group dynamics significantly enhanced the educational experience of these sessions. There were several activities ("Do a Lot with a Little" brainstorming; a group deployment exercise) that relied on group participation for success. Furthermore, a hands-on demonstration and practice of special deployment equipment enabled the students to practice and become familiar with equipment that is not readily available to them unless deployed.

There would be value in providing the information presented by the speakers to a wider audience via a distance learning technology. Analysis has shown that 38 hours (73%) of this course could be converted to Web Based Training. Although the educational experience would not be comparable, it would be valuable. While the course is not recommended for conversion consideration may be given to providing a distance learning alternative to the 96% of potential participants not in attendance who could benefit from much of the information provided. Actual time per student spent on such a course would be considerably less that 35 hours given that dietitians and physical therapists would follow different tracks. The Alternative provided is for informational purposes only and does not constitute a recommendation to convert.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course	**Course Number:** A0630

1. Instructional goals of the course : To enhance the overall military readiness of military dietitians and physical therapist of domestic, joint, and international in a wide variety of deployed environments. The course promotes understanding of military missions in war and military operations other than war (MOOTW), and develops understanding of the strategic planning required for assessment and delivery of health care under battlefield conditions, MOOTW, and humanitarian and disaster relief missions.

			Yes	No
2. Frequency of course offering per year:	# 1			
3. Current length of course in hours	# 35	7. Convert to DL?		X
4. Number of hours to be converted	# 35	8. Enhance?		X
5. Number of registered students	# 80			
6. Number of potential students that could benefit from the course	# 2000			

9. If item 8 = Yes, Specify:

Technology	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$ 113,925	
11. Total Cost Year Two	$ 113,925	
12. Total Cost Year Three	$ 113,925	
13. Total Cost Year Four	$ 113,925	
! 4. Total Cost Year Five	$ 113,925	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$ 569,625***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$ 113,925	
17. Total potential students over a five-year period. (multiply the number of potential students (item 6 above) by 5.)	# 10,000	
18. Average cost per potential student over 5-year period. (divide the value in line 15 by the value in line 17)	$ 57	

Additional Hardware/Software Required

Item:	Cost per unit	Total Cost

Proposed Enhancement(s)	Cost
	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: Alternative: AMSC Combat Casualties and Humanitarian Missions Course	**Course Number:** A0630

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Note: For this alternative, assume 11 hours common core instruction and 12 hours each of focused instruction for dietitians and physical therapists. Level of interactivity is set at Level 2. Web Based Training would be used due to the large number of potential authors (currently presenters). Assume that 100% of the content will change each year.

Course Information Summary Sheet

Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course			
Course Number: A0630			
Length of course - number of hours of instruction:			
Number of Registered Students: 80			
Number of potential students that could benefit from this course: 2000			
Instructional goals of the course: To enhance the overall military readiness of military dietitians and physical therapist of domestic, joint, and international in a wide variety of deployed environments. The course promotes understanding of military missions in war and military operations other than war (MOOTW), and develops understanding of the strategic planning required for assessment and delivery of health care under battlefield conditions, MOOTW, and humanitarian and disaster relief missions.			
Frequency of Course Offering: Once a year			
Continuing Education Credit Offered? Yes		**Number:** 29.5	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course
Media: WEB Based Training **Level:** 2

		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	*.40*	*.20*	*.25*	*.15*	
2	Multiply line 1 by average * hours___200___					
3	Average hrs. per phase	*80*	*40*	*50*	*30*	
4	Adjustments ** for hours per phase Use 1._ for added time and ._ for less time	*.3*	*.5*	*.8*	*.3*	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	*24*	*20*	*40*	*9*	
	Total Labor Hours - sum across line 5					*93*

* Average hours per hour of instruction

** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Web Based Training		
Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course	**Course Number:** A0630	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	$ 50
3	Multiple line 1 by line 2 and put the results on line 3.	$ 4650
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 35
5	Compression: If conversions to asynchronous delivery multiply line 4 by **.7** (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 24.5
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery **OR** line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$ 113,925
Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	$
8	Recurring Costs	$
9	Delivery Labor Costs	$
10	Travel Costs	$
11	Miscellaneous Costs	$
12	Add line 7 to 12	$
13	**Total Cost** - Add lines 6 and 12.	$ 113,925
14	Number of potential students	# 2000
15	Average Cost Per Student Divide line 13 by line 14	$ 57

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Alternative: AMSC Combat Casualties and Humanitarian Missions Course	**Course Number:** A0630

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	2278.5	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	2278.5	
3. Labor hours year 3	2278.5	
4. Labor hours year 4	2278.5	
5. Labor hours year 5	2278.5	
6. Subtotal	113,925	
7. Average labor cost	$ 50	
8. Total labor Cost over 5-yr. period. Multiply line 6 by line 7	$ 569,625	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 0	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 0	
11. Cost year 3	$ 0	
12. Cost year 4	$ 0	
13. Cost year 5	$ 0	
14. Total Additional Costs. Sum lines 9 to 13 and enter on line 14	$ 0	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 596,625	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 113,925	
17. Potential students year 1	2000	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	10,000	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 57	Round up to the nearest whole dollar

91B Multisystem Trauma Short Course
Conversion Analysis

91B MULTISYSTEM TRAUMA SHORT COURSE

Course Purpose:

To enhance the medical NCO's capabilities by presenting valuable, up-to-date information on multiple system trauma treatment and management, establish common approaches to similar issues related to trauma, and exchange state-of-the-art information and current trends within the entire spectrum of emergency medical providers.

Course Content Stability: **Low**

As medicine changes with new ideas and technology, the material presented is the most current to date.

General Presentation Style: **Distributive**

The course was primarily lecture format with an opportunity for questions and answers.

Instructional Aids:

The majority of the speakers used PowerPoint slides or a 35mm slide projector to support their presentations. A significant portion of the speakers also provided the students with handouts. In addition, there was limited use of video (10%).

Hands-on Activities:

None

Degree of Instructional Interaction

There was an opportunity to ask questions following most of the presentations. Although few questions were asked, when they occurred, the exchanges were informational.

Relevant Instructional Value: **High**

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently.

Recommendation

Convert to Web Based Training.

The instructional value of this course would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Since approximately 90% of the course can change on an annual basis, the best mode of delivery would be Web Based Training, although Computer Based Training could also be utilized. Currently, this course is offered every two years at an estimated cost (by the Course Administrator) of $158,000. Even if the course had to be completely updated each year, converting to Web Based training would result in savings of over $37,000 over the two-year period. If the course had to be updated every two years, the savings would double. Offering the course over the web would make it available to everyone in the MOS. If everyone in the MOS took the course over a five-year period, the average cost per student would be only $20. If everyone took the course in one year, the cost would only be $4 per student!

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 91 B Multisystem Trauma Short Course	**Course Number:** A0711

1. Instructional goals of the course: To provide participants an interactive forum in which to develop their own personal framework for the AMEDD vision that supports leadership development.

2. Frequency of course offering per year	1		**Yes**	**No**
3. Current length of course in hours	19	7. Convert to DL?	X	
4. Number of hours to be converted	19	8. Enhance?		X
5. Number of registered students	448			
6. Number of potential students that could benefit from the course	15,224			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WTB		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X__ Long ___ Synchronous ___

Cost Data

10. Total Cost Year One				$61,845		
11. Total Cost Year Two				$61,845		
12. Total Cost Year Three				$61,845		
13. Total Cost Year Four				$61,845		
14. Total Cost Year Five				$61,845		
15. Total costs year 1 to 5 (Sum of lines 10 through 14)				$309,225		
16. Average cost, years 1 to 5 (Divide value in line 15 by 5)				$61,845		
17. Total potential students over a five year period. (multiply the number of potential students [item 6 above] by 5.)				15,224		* This accounts for everyone in the MOS
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)				$20		

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancements	**Cost**
Total Enhancement Costs	

Instructional Formats and Physical Training Requirements

Course Name: 91B Multisystem Trauma Short Course	**Course Number:** A0711

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: 91B Multisystem Trauma Short Course			
Course Number: A0711			
Length of course - number of hours of instruction: 19			
Number of Registered Students: 448			
Number of potential students that could benefit from this course: 15,221 (entire career field)			
Instructional goals of the course: To enhance the medical NCO's capabilities by presenting valuable, up-to-date information on multiple system trauma treatment and management, establish common approaches to similar issues related to trauma, and exchange state-of-the-art information and current trends within the entire spectrum of emergency medical providers.			
Frequency of Course Offering: Bi-annual			
Continuing Education Credit Offered? Yes		**Number:** 31.4	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	✓
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			

Course Technology Match Table

Course: 91B Multisystem Trauma Short Course		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing				■		
Group training		■	■			
On-demand availability				■		
Open entry / open exit				■		
Detailed student records		■		■		
Test Security		■				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)		■	■			
Self study				■		
Demonstration						
Exhibit						
Guided Discussion		■	■			
Simulation – knowledge based						
Simulation - hardware		■	■	■		
Problem solving exercises						
Learning to Mastery				■		
Practice / drill				■		
Structured Review				■		
Feedback on performance				■		
Remediation				■		
Group activities/collaborative tasks		■				
Testing Types						
Objective knowledge tests						
Essay		■	■	■		
Performance test –"paper" exercise				■		
Performance test – hardware simulation				■		
Performance test – hardware		■	■	■		
Oral testing		■	■	■		
No testing/Student course evaluation	✓					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation				■		
3D interactive animation				■		
Pre recorded video /films	✓					
Communications						
Audio						
Indirect discourse		■	■			
Assigned reading						
Open Discussion		■	■			
Question and answer opportunities		■	■			

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: 91B Multisystem Trauma Short Course	**Course Number:** A0711			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
Feedback on performance			>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		✓	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: 91 B Multisystem Trauma Short Course	**Course Number:** A0711			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records				
Test Security				
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration			>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
Problem solving exercises		>>>>>>>>	>>>>>>>>	>>>>>>>>
Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review			>>>>>>>>	>>>>>>>>
Feedback on performance		>>>>>>>>	>>>>>>>>	>>>>>>>>
Remediation			>>>>>>>>	>>>>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>>>	>>>>>>>>	>>>>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>>>	>>>>>>>>
Performance test – hardware simulation				>>>>>>>>
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Graphics				
2D graphics still	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
3D graphics still			>>>>>>>>	>>>>>>>>
2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films		✓	>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: 91B Multisystem Trauma Short Course						
		Media: Web Based Training			**Level:** 2	
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: 91B Multisystem Trauma Short Course						
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		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Web Based Training			
Course Name: 91B Multisystem Trauma Short Course		**Course Number:** A0711	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	19
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	13.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	$61,845.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	61,845.00
14	Number of potential students.	#	15,221
15	Average Cost Per Student Divide line 13 by line 14	$	4.06

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Computer Based Training			
Course Name: 91B Multisystem Trauma Short Course		**Course Number**: A0711	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	19
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	13.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	61,845.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	61,845.00
14	Number of potential students.	#	15,221
15	Average Cost Per Student Divide line 13 by line 14	$	4.06

Cost Estimate for a Single Course Over a Five Year Period

Course Name: 91 B Multisystem Trauma Short Course			**Course Number**: A0711		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**		**Source**
1. Labor Hours Year 1	1237		*Course Technology Match Table, Technology Interactivity Factors Table*
2. Labor Hours Year 2	1237		
3. Labor Hours Year 3	1237		
4. Labor Hours Year 4	1237		
5. Labor Hours Year 5	1237		
6. Subtotal	6185		
7. Average Labor Cost per hour	$50		
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$309,225		
Additional Development Costs By Year			
9. Cost year 1	$0		*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$0		
11. Cost year 3	$0		
12. Cost year 4	$0		
13. Cost year 5	$0		
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$0		
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$309,225		
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$61,845		
17. Potential students year 1.	3044		*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	15220		
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	$20		*Round up to the nearest whole dollar.*

91 R/S/T Short Course (Vet)
Conversion Analysis

91 R/S/T Short Course (Vet)

Purpose of the Course:

R = Veterinary Technician; S = Preventive Medicine; T = Food Service

Purpose:

91 R/T: To update geographically-isolated soldiers on new methods, guidance, technology, and information related to food inspection and animal care, and to network and share common solutions.

91 S: Inform students about current issues in Preventive Medicine and to share experience and knowledge.

Course Content Stability: **Low**

The focus is on the latest developments in the area, and therefore the topics change each year. There are some core topics in the 91 S course that are stable each year.

General Presentation Style: **Distributive**

This course could be better described as a "conference" than a formal course. That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. Approximately 95% of the instruction was delivered using a basic lecture format. Approximately 2% used film/video as part of the presentation. There was one demonstration/shop activity.

Instructional Aids:

Most of the speakers used overhead slides, 35mm slides, or PowerPoint presentation files to aid them in their instruction.

Hands-on Activities:

None

Degree of Instructional Interaction:

There were opportunities for the students to ask questions. Although many of the instructor's felt that the class interaction was critical to meeting course objectives, the amount of this interaction varied from instructor to instructor. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor; that is, the interaction did not expand into a general discussion period involving several students.

Relevant Instructional Value: **Moderate**

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. A primary benefit of the course appeared to be the opportunity to network and make contacts among peers.

Recommendation:

Convert to Web Based Training.

This "course" is actually more of a conference insofar as there is no structured set of intended learning outcomes unified by a specific theme. The information itself could easily be presented in the form of Web Based training accompanied by an electronic journal. As such, the entire population could have access to the information, and the presenters could have an "electronic publication" to add to their vitas. In this way, the educational value of the course could be increased insofar as students could participate in interactive activities and be assessed using a distance learning technology.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 91 R/S/T Short Course (Vet)	**Course Number:** A0717

1. Instructional goals of the course:
91 R/T: To update geographically-isolated soldiers on new methods, guidance, technology, and information related to food inspection and animal care, and to network and share common solutions.
91 S: Inform students about current issues in Preventive Medicine/share experience and knowledge.

			Yes	No
2. Frequency of course offering per year	1[1]			
3. Current length of course in hours	38[2]	7. Convert to DL?	X	
4. Number of hours to be converted	38	8. Enhance?		X
5. Number of registered students	80			
6. Number of potential students that could benefit from the course	1,250			

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X__ Long ___ Synchronous ___

Cost Data

10. Total Cost Year One				$123,700		
11. Total Cost Year Two				$123,700		
12. Total Cost Year Three				$123,700		
13. Total Cost Year Four				$123,700		
14. Total Cost Year Five				$123,700		
15. Total costs year 1 to 5 (Sum of lines 10 through 14)				$618,500		

16. Average cost, years 1 to 5 (Divide value in line 15 by 5)	$123,700	
17. Total potential students over a five year period. (multiply the number of potential students [item 6 above] by 5.)	6,250	
18. *Average cost per potential student over 5 year period.* (divide the value in line 15 by the value in line 17.)	$99	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancements	**Cost**
Total Enhancement Costs	

[1] Course is offered bi-annually
[2] Includes all breakout hours in the total

Instructional Formats and Physical Training Requirements

Course Name: 91 R/S/T Short Course (Vet)	**Course Number:** A0717

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
95%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
5%	*Demonstration*	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: 91 R/S/T Short Course (Vet)	
Course Number: A0717	
Length of course - number of hours of instruction: 38	
Number of Registered Students: 80	
Number of potential students that could benefit from this course: 1,250	
Instructional goals of the course: 91 R/T: To update geographically-isolated soldiers on new methods, guidance, technology, and information related to food inspection and animal care, and to network and share common solutions. 91 S: Inform students about current issues in Preventive Medicine/share experience and knowledge.	
Frequency of Course Offering: Bi-Annual	
Continuing Education Credit Offered? No	**Number:** N/A

For each item listed, check ✓ row marked "Check" if observed or documented.

Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	✓	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration	✓	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware			
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			

Course Technology Match Table

Course 91 R/S/T Short Course (Vet)		**Technologies**				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing				■		
Group training		■	■			
On-demand availability				■		
Open entry / open exit				■		
Detailed student records		■		■		
Test Security		■				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	✓					
Live Presenters (guest speakers)		■	■			
Self study				■		
Demonstration	✓					
Exhibit						
Guided Discussion		■	■			
Simulation – knowledge based						
Simulation - hardware		■	■	■		
Problem solving exercises						
Learning to Mastery				■		
Practice / drill				■		
Structured Review				■		
Feedback on performance				■		
Remediation				■		
Group activities/collaborative tasks		■				
Testing Types						
Objective knowledge tests						
Essay		■	■	■		
Performance test –"paper" exercise				■		
Performance test – hardware simulation				■		
Performance test – hardware		■	■	■		
Oral testing		■	■	■		
No testing/Student course evaluation	✓					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation				■		
3D interactive animation				■		
Pre recorded video /films						
Communications						
Audio						
Indirect discourse		■	■			
Assigned reading						
Open Discussion		■	■			
Question and answer opportunities		■	■			

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Course Name: 91 R/S/T Short Course (Vet)	**Course Number:** A0717			
Asynchronous Course	**WEB Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
Group training				
On-demand availability		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open entry / open exit		>>>>>>>>	>>>>>>>>	>>>>>>>>
Detailed student records		>>>>>>>>	>>>>>>>>	>>>>>>>>
Test Security		>>>>>>>>	>>>>>>>>	>>>>>>>>
Multiple test forms			>>>>>>>>	>>>>>>>>
Training / Instruction Approach				
Lecture / Text	✓	>>>>>>>>	>>>>>>>>	>>>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>>>	>>>>>>>>	>>>>>>>>
Demonstration		✓	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>>>	>>>>>>>>
Simulation - hardware				
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Learning to Mastery		>>>>>>>>	>>>>>>>>	>>>>>>>>
Practice / drill		>>>>>>>>	>>>>>>>>	>>>>>>>>
Structured Review				>>>>>>>>
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Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Course Name: 91 R/S/T Short Course (Vet)	**Course Number:** A0717			
Asynchronous Course	**Computer Based Training**			
Interactivity Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Administrative Requirements				
Self pacing		>>>>>>>>	>>>>>>>>	>>>>>>>>
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Demonstration		✓	>>>>>>>>	>>>>>>>>
Exhibit			>>>>>>>>	>>>>>>>>
Guided Discussion				
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2D animation			>>>>>>>>	>>>>>>>>
3D animation				>>>>>>>>
2D interactive animation				>>>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>>>	>>>>>>>>
Communications				
Audio		>>>>>>>>	>>>>>>>>	>>>>>>>>
Indirect discourse				
Assigned reading		>>>>>>>>	>>>>>>>>	>>>>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction					
Course Name: 91 R/S/T Short Course (Vet)					
	Media: Web Based Training			**Level:** 2	
	Analysis	Design	Development	Implementation	Sum
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2 Multiply line 1 by average * hours 200					
3 Average hrs. per phase	80.00	40.00	50.00	30.00	
4 Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction					
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.					

Short Worksheet: Development Time

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: 91 R/S/T Short Course (Vet)						
		Media: Computer Based Training			**Level:** 2	
		Analysis	Design	Development	Implementation	Sum
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3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1._ for added time and ._ for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00
* Average hours per hour of instruction						
** Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.						

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Web Based Training			
Course Name: 91 R/S/T Short Course (Vet)		**Course Number**: A 0717	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	38
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	26.6
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	123,690.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	123,690.00
14	Number of potential students.	#	1,250
15	Average Cost Per Student Divide line 13 by line 14	$	98.95

Course Cost Estimation Worksheet

Course Cost Estimation Worksheet: Computer Based Training			
Course Name: 91 R/S/T Short Course (Vet)		**Course Number:** A 0717	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	38
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	26.6
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	$	123,690.00
Do not use lines 7 to 12 for any costs that are to be shared.			
7	Infrastructure Costs	$	
8	Recurring Costs	$	
9	Delivery Labor Costs	$	
10	Travel Costs	$	
11	Miscellaneous Costs	$	
12	Add line 7 to 12	$	0.00
13	Total Cost - Add lines 6 and 12.	$	123,690.00
14	Number of potential students.	#	1,250
15	Average Cost Per Student Divide line 13 by line 14	$	98.95

Cost Estimate for a Single Course Over a Five Year Period

Course Name: 91 R/S/T Short Course (Vet)			**Course Number**: A0717		
Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT		X			
CBT					
VTT	Low		High		
Other					

Cost Factors	**Values**		**Source**
1. Labor Hours Year 1	2,473.8		*Course Technology Match Table, Technology Interactivity Factors Table*
2. Labor Hours Year 2	2,473.8		
3. Labor Hours Year 3	2,473.8		
4. Labor Hours Year 4	2,473.8		
5. Labor Hours Year 5	2,473.8		
6. Subtotal	12,369		
7. Average Labor Cost per hour	$50		
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.	$618,450		
Additional Development Costs By Year			
9. Cost year 1	$0	*Data to Support Cost Analysis Worksheet*	
10. Cost year 2	$0		
11. Cost year 3	$0		
12. Cost year 4	$0		
13. Cost year 5	$0		
14. Total additional costs. Sum lines 9 to 13 and enter on line 14	$0		
15. Total Course Cost. Add lines 8 and 14 and enter on line 15.	$618,450		
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$123,690		
17. Potential students year 1.	1,250	*From Course Information Summary Sheet*	
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)	6250		
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)	$99	*Round up to the nearest whole dollar.*	

Health Care Ethics
Conversion Analysis

ETHICS

Course Purpose:

To provide chaplains with the tools for ethical decision-making with a particular focus on medical and battle field ethics.

Course Content Stability: **High**

Although the examples used during the course may change, the focus on the "case study method" remains constant.

General Presentation Style: **Lecture/Simulation/Open Discussion**

Background information was presented using a basic lecture format. Many of the issues were then further examined using group discussion. The application of the case study method was demonstrated using a discussion format as well. High level of interactivity

Instructional Aids:

Lecture was supplemented with overhead slides outlining the information being presented. Handouts provided guidelines concerning the case study method and information about activities that the students would be participating in, as well as films/VCR presentations were used, .

Hands-on Activities:

None.

Degree of Instructional Interaction:

The students participated in several discussions, and a role play. This allowed the students to more fully explore some rather sensitive and "gray area" issues. In addition, they could demonstrate that they had integrated the information presented concerning the "case study method", and were able to work through a "real life" problem using it.

Relevant Instructional Value: **High**

This seminar presented professionally relevant information as well as a methodology that could be used to function more effectively on the job.

Recommendation:

Do not convert to a distance learning mode

While it is possible to convert this course to Video Teletraining, the cost per student is very high. The high level of interactivity would require the course to be presented at least twice in order for a high level of interactivity to be maintained. While it is possible to separate the methodology from the application so that students could review the material, and familiarize themselves with the content before attending the course, the high level of integration in this course would require that this material be presented again in the course and in context. Given the short length of the course, and the small number of students, pre-course instruction will not provide any significant savings.

DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Health Care Ethics	**Course Number:** A0803

1. Instructional goals of the course : To provide chaplains with the tools for ethical decision-making with a particular focus on medical and battle field ethics.

			Yes	No
2. Frequency of course offering per year:	# less than 1			
3. Current length of course in hours	# 24	7. Convert to DL?		X
4. Number of hours to be converted	# 24	8. Enhance?		X
5. Number of registered students	# 15			
6. Number of potential students that could benefit from the course	# 35			

RECOMMEND ETHICS COURSE BE LEFT AS-IS

9. If item 8 = Yes, Specify

Technology	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High		
Other					

Labor Hours Estimation Method: Short _X_ Long__ Synchronous ___

Cost Data

10. Total Cost Year One	$	
11. Total Cost Year Two	$	
12. Total Cost Year Three	$	
13. Total Cost Year Four	$	
!4. Total Cost Year Five	$	
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	***$***	
16. Average cost, years 1 to 5 (divide value in line 15 by 5)	$	
17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)	#	
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)	$	

Additional Hardware/Software Required

Item:	**Cost per unit**	**Total Cost**

Proposed Enhancement(s)	**Cost**
Electronic Journal	$
	$
	$
Total Enhancement Costs	$

Instructional Formats and Physical Training Requirements

Course Name: Health Care Ethics	**Course Number:** A0803

% of Course Using this Instructional Format	Format	Description	Physical Presence Required ?
77%	***Lecture with questions/answer opportunities***	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
12%	*Group Discussion*	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Health Care Ethics			
Course Number: A0803			
Length of course - number of hours of instruction: 24			
Number of Registered Students: 15			
Number of potential students that could benefit from this course: 35			
Instructional goals of the course: To provide chaplains with the tools for ethical decision-making with a particular focus on medical and battle field ethics.			
Frequency of Course Offering: less than once a year			
Continuing Education Credit Offered? NO		**Number:** N/A	
For each item listed, check ✓ row marked "Check" if observed or documented.			
Administrative Requirements	**Check**		**Check**
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion	X	Group activities/collaborative tasks	
Simulation (roll play, in-basket)	X		
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X
Communications			
Audio		Open Discussion	X
Indirect discourse		Question and answer	X
Assigned reading			

Course Technology Match Table

Course Name: Health Care Ethics		Technologies				
Administrative Requirements	**Check**	**CBT**	**WBT**	**VTT**		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion	X					
Simulation – knowledge based	X					
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics						
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	X					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion	X					
Question and answer opportunities	X					

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Technology Interactivity Factors

Synchronous Course	Video Teletraining	
Interactivity Factors	**Level 1 Low**	**Level 2 High**
Administrative Requirements		
Self pacing		
Group training		>>>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>>>>
Multiple test forms		>>>>>>>>
Training / Instruction Approach		
Lecture / Text	X	>>>>>>>>
Live Presenters (guest speakers)		>>>>>>>>
Self study		
Demonstration		>>>>>>>>
Exhibit		>>>>>>>>
Guided Discussion		X
Simulation – knowledge based	X	>>>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	X	>>>>>>>>
Graphics		
2D graphics still		>>>>>>>>
3D graphics still		>>>>>>>>
2D animation		>>>>>>>>
3D animation		>>>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>>>>
Communications		
Audio		>>>>>>>>
Indirect discourse		
Assigned reading		>>>>>>>>
Open Discussion		X
Question and answer opportunities		X

Shaded blocks indicates factors NOT supported by that level of technology
Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Calculation of Synchronous Training Costs

Course Name: Health Care Ethics	**Course Number**: A0803
Labor Costs:	
Development Cost = (160 hrs.) x average hourly rate ($50)	$ 8000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate ($50)	$ 2800
Non-local Labor Cost = Number of non-local presenters) x (length of the course in days +1) x number of times offered x average daily rate ($400	$ 12,000
Local Labor Cost + Number of local presenters x average hourly rate ($50) X 2 X number of times course is offered.	$ none
Total Labor Costs	$ 22,800
Additional Cost (any costs not captured above)	
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	$ 3,630
Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.	$ 1000
Total dollar amount paid as honorariums	$ none
(Other)	$ none
Total Estimated Cost: Add Total Per Diem, Airfare, Labor Costs, and Additional Costs.	
Total Labor Costs	$ 22,800
Total Per Diem	$ 3,630
Total Airfare	$ 1,000
Total paid as honorariums	$ none
(other) electronic journal	$ none
TOTAL COURSE COST Year 1	$ 27,430
Cost Per Student = Total course costs divided by potential number of students (35)	$ 783

Note:

- Given the small number of presenters and their high level of experience delivering this type of information, preparation time should be well below the average. Therefore the time spent in preparation and planning by all involved should be less. The estimate used is 160 hours for the first year, if converted.
- Since all presenters stayed at the facility where the course was given they are all considered non-local even though only required air travel.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Health Care Ethics	**Course Number:** A0803

Technology Selected	**Level 1**	**Level 2**	**Level 3**	**Level 4**	
WBT					
CBT					
VTT	Low		High	**X**	
Other					

Cost Factors	**Values**	**Source**
1. Labor hours year 1	160	*Course Technology Match Table* *Technology Interactivity Factors Table*
2. Labor hours year 2	80	
3. Labor hours year 3	80	
4. Labor hours year 4	80	
5. Labor hours year 5	80	
6. Subtotal	480	Covers preparation and planning time
7. Average labor cost	$ 50	
8. Total labor Cost over 5 yr. period. Multiply line 6 by line 7	$ 24,000	
Additional Development/ Delivery Cost By Year		
9. Cost year 1	$ 19,430	*Data to Support Cost Analysis Worksheet*
10. Cost year 2	$ 16,630	
11. Cost year 3	$ 16,630	Additional Costs include course managers studio time for year one only, non-local labor costs, per diem and air fair.
12. Cost year 4	$ 16,630	
13. Cost year 5	$ 16,630	
14. Total Additional Costs . Sum lines 9 to 13 and enter on line 14	$ 85,950	
15. Total Course Cost. Add lines 8 and 14 and enter on line 15	$ 109,950	
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.	$ 21,990	
17. Potential students year 1	35	*From Course Information Summary Sheet*
18. Total potential students year 1 to 5 (multiply line 17 by 5. and enter on line 18)	175	
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)	$ 629	Round up to the nearest whole dollar